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Dear Ms. Lee and Ms. Constantinescu:

I am pleased to submit to you the *Final Site 1 Landfill 2004 Annual Report* for the former Naval Air Station (NAS) Moffett Field, Moffett Field, California. If you have questions or comments, please contact Mr. Glenn Christensen at (619) 532-0924 or myself at (619) 532-0952

Sincerely,

"Signature on file"

RICHARD WEISSENBORN
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By direction of the Director

Enclosure: 1. *Final Site 1 Landfill 2004 Annual Report* dated December 2, 2005

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Program Management Office West
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**FINAL
SITE 1 LANDFILL
2004 ANNUAL REPORT
Revision 0
December 2, 2005**

**FORMER NAVAL AIR STATION MOFFETT FIELD
MOFFETT FIELD, CALIFORNIA**

**Base Realignment and Closure
Program Management Office West
1455 Frazee Road, Suite 900
San Diego, California 92108**

**CONTRACT NO. N68711-98-D-5713
CTO No. 0086**

**FINAL
SITE 1 LANDFILL 2004 ANNUAL REPORT
Revision 0
December 2, 2005**

**FORMER NAVAL AIR STATION MOFFETT FIELD
MOFFETT FIELD, CALIFORNIA**

DCN: FWSD-RAC-06-0125



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ABBREVIATIONS AND ACRONYMS

| | |
|-----------|-------------------------------------------------------|
| 4,4 - DDD | 4,4 - dichlorodiphenyldichloroethane |
| µg/L | micrograms per liter |
| ASTM | American Society for Testing and Materials |
| BeP | bi(2-ethylhexyl)phthalate |
| bgs | below ground surface |
| BHC | benzene hexachloride |
| CCL | calculated concentration limit |
| COC | constituent of concern |
| DDD | dichlorodiphenyldichloroethane |
| DDE | dichlorodiphenyldichloroethene |
| DDT | dichlorodiphenyltrichloroethane |
| DEH | Santa Clara County Department of Environmental Health |
| DUP | duplicate sample |
| EPA | United States Environmental Protection Agency |
| ft | feet |
| ft/ft | feet per foot |
| FWENC | Foster Wheeler Environmental Corporation |
| GS | ground surface |
| GV | gas vent |
| IRP | Installation Restoration Program |
| IT | International Technology Corporation |
| J | estimated value |
| LGMW | landfill gas monitoring well |
| MDL | method detection limit |
| mg/L | milligrams per liter |
| msl | mean sea level |
| NA | not available |
| NAD | North American Datum |
| NAS | Naval Air Station |
| NASA | National Aeronautics and Space Administration |

ABBREVIATIONS AND ACRONYMS

(Continued)

| | |
|-------|------------------------------------------------------|
| NGVD | National Geodetic Vertical Datum |
| NM | not measured |
| OUI | Operable Unit 1 |
| PCB | polychlorinated biphenyl |
| ROD | Record of Decision |
| SQL | sample quantitation limit |
| SVOC | semivolatile organic compound |
| TtEMI | Tetra Tech EM, Inc. |
| ToC | top of casing |
| TtFW | Tetra Tech FW, Inc. |
| U | analyte not detected above method reporting limit |
| UJ | analyte not detected above estimated reporting limit |
| VOC | volatile organic compound |

EXECUTIVE SUMMARY

This document summarizes the 2004 monitoring and maintenance activities conducted at the Site 1 Landfill and presents the results of evaluating the post-closure groundwater monitoring data collected at the Site 1 Landfill in 2004. The content of this report meets the requirements of the Record of Decision for Operable Unit 1 and the California Code of Regulations, Title 27, Subchapter 3. The Site 1 Landfill is located at the northern end of the former Naval Air Station Moffett Field, located near Mountain View, California.

Depth to groundwater measurements, groundwater sampling, and methane monitoring were conducted at the Site 1 Landfill in March, May, and November 2004. Groundwater samples were collected from nine monitoring wells, as well as from collection trench well W1-22. Collection trench well W1-23 could not be sampled due to insufficient water. Volatile organic compounds, pesticides, polychlorinated biphenyls (PCBs), and metals, including mercury, were analyzed during each sampling event. In May and November 2004, semivolatile organic compounds (SVOCs) also were analyzed.

SVOCs and mercury were analyzed in supplemental groundwater sampling events in July, August, September, and December 2004 because SVOCs and mercury were not analyzed historically at Site 1. SVOCs and mercury were not detected in these sampling events. Water level measurements also were taken during these supplemental sampling events.

Depth to groundwater measurements were collected from Site 1 Landfill monitoring wells, piezometers, and collection trench wells on March 22, May 24, July 6, August 18, September 27, November 8, and December 13, 2004. The groundwater elevations were similar to previous years. The groundwater flows from north to south at the Site 1 Landfill. The water levels in monitoring well pairs show upward potential. Most monitoring wells had seasonal high water levels in March 2004 and seasonal low water levels in August 2004. The seasonal water level fluctuation was on the order of 0.5 feet.

Analytical results of 2004 groundwater sampling at Site 1 were evaluated in accordance with the procedures provided in the *Final Technical Memorandum, Site 1 Groundwater Evaluation Process* (Tech Memo) issued in April 2004. The Tech Memo provides calculated concentration limits (CCLs) that were developed based on ecological screening criteria and site-specific attenuation factors for the groundwater. These CCLs are used as initial screening criteria in the groundwater evaluation.

During 2004, no reported pesticides or PCB concentrations were greater than the applicable CCLs. Aluminum, barium, chromium, silver, carbon disulfide, bis(2-ethylhexyl)phthalate (BeP),

and caprolactam concentrations were greater than the applicable CCL in samples from a monitoring well in at least one sampling event during 2004. In the cases of barium, chromium, silver, and carbon disulfide, exceedances occurred either from a background well or were less than historical background levels previously recorded. Therefore, there was not a release from the landfill.

In the cases of aluminum, BeP and caprolactam, there was one exceedance each, which occurred in samples from a downgradient monitoring well and each was at a concentration greater than historical background levels. In the case of aluminum, there were no detections in several subsequent sampling events conducted approximately 6 weeks apart. In the cases of BeP and caprolactam, the exceedances were only in the duplicate sample and were not detected in the regular sample collected from this well at the same time as the duplicate sample. BeP and caprolactam were not detected in several subsequent sampling events conducted approximately 6 weeks apart. BeP is often a laboratory contaminant. These exceedances are considered to be false positives and there was no release from the landfill.

As part of landfill monitoring activities, methane monitoring was conducted for 19 passive gas vent wells within the Site 1 Landfill and 4 landfill gas monitoring wells on the perimeter of the landfill. Methane monitoring was also performed at the perimeter of the site at 150-foot intervals. In general, the percentages of methane gas concentrations within the landfill were slightly lower in November 2004 than in March or May 2004 and are similar to historical concentrations. None of the perimeter wells showed concentrations of methane above the Title 27 concentration limit of 5 percent (all readings were zero percent). Methane was not detected at any of the perimeter monitoring locations in March, May, or November 2004.

A replacement well for monitoring well W1-1 was installed and developed in August 2004. Maintenance activities conducted at the Site 1 Landfill during 2004 include inspection and repair, as required, of the landfill cover, including cutting the grass and the weeds, the raptor perches, landfill gas vents and monitoring wells, groundwater monitoring wells, piezometers, collection trench wells, and stormwater runoff controls. Santa Clara County Department of Environmental Health inspected Site 1 quarterly in 2004. No problems or deficiencies were identified.

1.0 INTRODUCTION

This document summarizes the 2004 monitoring and maintenance activities conducted at the Site 1 Landfill and presents the results of evaluating the post-closure groundwater monitoring data collected at the Site 1 Landfill in 2004. The content of this report meets the requirements of the Record of Decision (ROD) for Operable Unit 1 (OU1) and the California Code of Regulations, Title 27, Subchapter 3. The Site 1 Landfill is located at the northern end of the former Naval Air Station Moffett Field (Moffett), located near Mountain View, California (Figure 1-1 and Figure 1-2). This report was prepared on behalf of the Base Realignment and Closure Program Management Office West. This work was conducted under Contract Task Order Number 0086, issued under Remedial Action Contract No. N68711-98-D-5713.

The purpose of this Annual Report is to present the results of groundwater monitoring and methane monitoring conducted in 2004 for the detection monitoring program at the Site 1 Landfill. It also includes a description of maintenance conducted at the Site 1 Landfill during 2004. Appendices A through F include field sampling data, analytical data, statistical evaluation, analytical data validation packages, groundwater hydrographs, groundwater monitoring point data graphs, and methane monitoring data graphs.

1.1 SITE LOCATION

Moffett is located near the southern edge of the San Francisco Bay in Santa Clara County, California (see Figure 1-1). Moffett is bounded by saltwater evaporation ponds to the north, Stevens Creek to the west, U.S. Highway 101 to the south, and Lockheed Martin to the east (see Figure 1-2).

The Site 1 Landfill is located in the northernmost portion of Moffett and encompasses approximately 12 acres. The Site 1 Landfill (historically referred to as the Runway Landfill) lies at the north end of the runways between North Perimeter Road, the salt evaporation ponds, and the Stormwater Retention Pond.

1.2 2004 MONITORING AND MAINTENANCE ACTIVITIES

Monitoring activities conducted in 2004 at Site 1 included depth to groundwater measurements, groundwater sampling, and methane monitoring. Groundwater monitoring at Site 1 was conducted during 2004 in accordance with the *Site 1 Landfill Final Closure Plan and Post-Closure Maintenance Plan* (Tetra Tech EM, Inc. [TtEMI], 1998), the *Post-Closure Monitoring (Site 1) and Groundwater Monitoring (Site 2) Sampling and Analysis Plan* (International Technology Corporation [IT], 2000), the *Final Sampling and Analysis Plan Addendum for Post-Closure Monitoring (Site 1) and Groundwater Monitoring (Site 2)* (Foster Wheeler Environmental Corporation [FWENC], 2001a), and the *Final Site-Specific Contractor Quality*

Control Plan for Sites 1 and 2 Groundwater Monitoring and Maintenance (FWENC, 2001b). The groundwater evaluation process was revised between the March and May 2004 sampling events, in accordance with the *Technical Memorandum, Site 1 Groundwater Evaluation Process* (Tech Memo) (Tetra Tech FW, Inc. [TtFW], 2004), which was finalized in April 2004.

As approved by the regulatory agencies, the sampling frequency and some analyses were modified in 2004 in accordance with the Tech Memo. Quarterly sampling was continued through March 2004. The Tech Memo was issued in April 2004, which states that semiannual sampling will be conducted in May and November 2004. Mercury was added to the groundwater analytes sampled in March 2004, and mercury and semivolatile organic compounds (SVOCs) were added to the analytes sampled in May and November 2004.

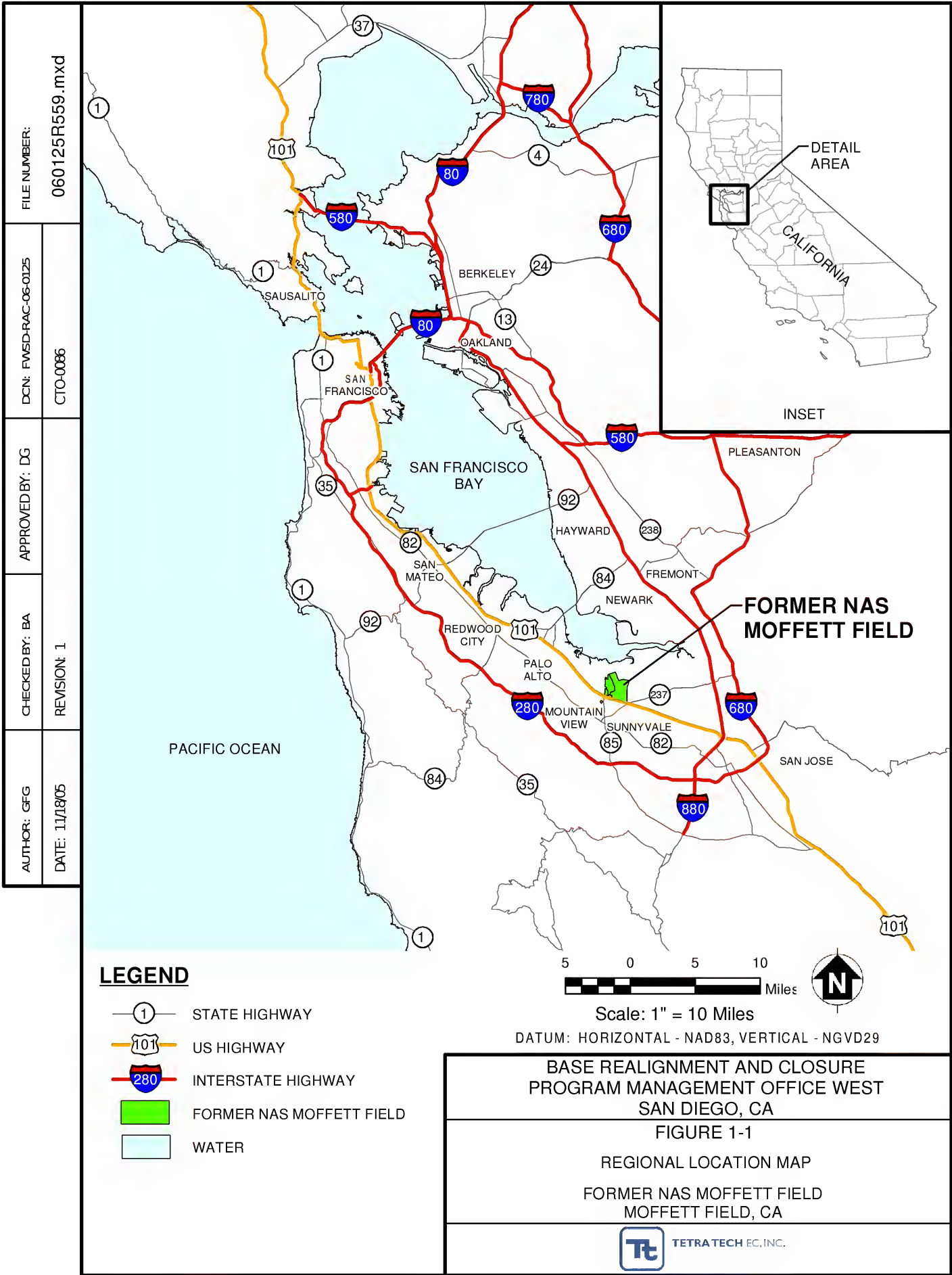
Methane monitoring was conducted in accordance with Section 6 of the *Site 1 Landfill Final Closure Plan and Post-Closure Maintenance Plan* (TtEMI, 1998), Section 5.2 of the *Post-Closure Monitoring (Site 1) and Groundwater Monitoring (Site 2) Sampling and Analysis Plan* (IT, 2000), and the *Final Sampling and Analysis Plan Addendum for Post-Closure Monitoring (Site 1) and Groundwater Monitoring (Site 2)* (FWENC, 2001a).

Depth to groundwater measurements, groundwater sampling, and methane monitoring were conducted at the Site 1 Landfill in March, May, and November 2004. Groundwater samples were collected from nine monitoring wells, as well as from collection trench well W1-22. Collection trench well W1-23 could not be sampled due to insufficient water. Volatile organic compounds, pesticides, polychlorinated biphenyls (PCBs), and metals, including mercury, were analyzed during each sampling event. In May and November 2004, SVOCs also were analyzed.

SVOCs and mercury were analyzed in supplemental groundwater sampling events in July, August, September, and December 2004 because SVOCs and mercury were not analyzed historically at Site 1. Water level measurements also were taken during these supplemental sampling events.

Monitoring well W1-1 was replaced in August 2004 due to corrosion of the well riser and outer protective casing. Installation of monitoring well W1-1R was completed on August 13, 2004. Table 1-1 provides well construction information for all Site 1 monitoring wells. Monitoring well W1-1R was constructed using techniques that conform to American Society for Testing and Materials (ASTM) D5092-04. Well W1-1R was located as close as possible to the original well and screened in approximately the same interval. Development of well W1-1R was completed on August 16, 2004. W1-1R was developed using a combination of surging and pumping that conforms to ASTM D5521-94. The boring log, well completion report, survey report, well development log, and well construction application are included in Appendix G.

Maintenance activities conducted at Site 1 during 2004 include inspection and repair, as necessary, of the landfill cap, stormwater runoff and control measures, raptor perches, landfill



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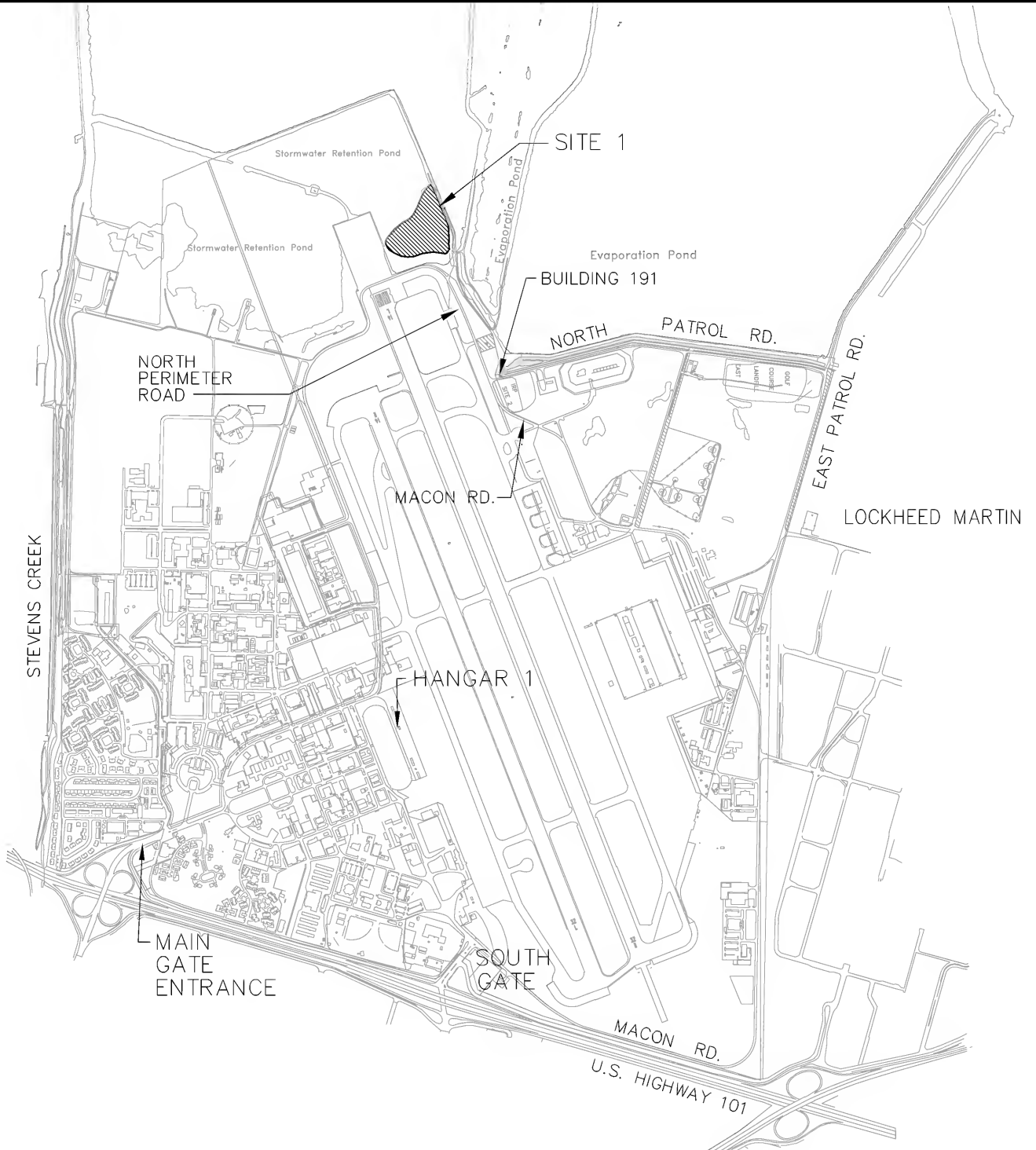
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FIGURE 1-2
SITE 1 LOCATION MAP
FORMER NAS MOFFETT FIELD
MOFFETT FIELD, CA



TETRA TECH EC, INC.

TABLE 1-1

**WELL CONSTRUCTION INFORMATION
FORMER NAS MOFFETT FIELD**

| Location | Northing (feet) | Easting (feet) | Diameter (inches) | ToC Elevation (feet) ¹ | GS Elevations (feet) ¹ | Total Well Depth (feet bgs) | Depth of Screen Interval (feet bgs) |
|---------------------|--------------------|----------------|----------------------|-----------------------------------------|-----------------------------------------|-----------------------------------|-------------------------------------------|
| W1-1 ² | 342250.8 | 1549860.0 | 2 | 2.16 | 2.11 | 25.0 | 15.0 - 25.0 |
| W1-1R ² | 342251.8 | 1549854.4 | 4 | 4.83 | 2.21 | 25.5 | 14.3 - 24.3 |
| W1-5 | 343385.2 | 1549579.0 | 4 | 3.02 | 1.91 | 21.5 | 14.5 - 19.5 |
| W1-6 | 342228.3 | 1549584.0 | 4 | -0.56 | 0.51 | 34.0 | 15.0 - 30.0 |
| W1-7 | 342492.2 | 1548951.0 | 4 | 0.24 | 0.01 | 75.0 | 40.0 - 70.0 |
| W1-8 | 342968.0 | 1549752.0 | 4 | 2.95 | 1.11 | 25.0 | 13.0 - 18.0 |
| W1-12R | 342969.3 | 1549342.1 | 4 | 0.17 | -3.19 | 22.0 | 11.7 - 21.7 |
| W1-14 | 342421.0 | 1549035.0 | 2 | 2.46 | -0.69 | 14.1 | 4.1 - 14.1 |
| W1-15 | 342381.0 | 1549545.0 | 2 | 2.60 | -0.29 | 14.4 | 4.4 - 14.4 |
| W1-16 | 342492.0 | 1549840.0 | 2 | 3.82 | 1.31 | 15.4 | 5.4 - 15.4 |
| W1-19 | 342300.6 | 1549180.2 | 2 | 1.98 | -0.39 | 19.0 | 14.0 - 19.0 |
| W1-20 | 342362.1 | 1549457.3 | 2 | 2.72 | -0.09 | 19.0 | 14.0 - 19.0 |
| W1-22 ³ | 343087.7 | 1549412.9 | 8 | 1.12 | 2.11 | 7.0 | 2.5 - 7.0 |
| W1-23 ³ | 342804.1 | 1549148.2 | 8 | 0.83 | 2.21 | 7.0 | 2.5 - 7.0 |
| W1-24 | 342747.8 | 1549847.2 | 4 | 4.27 | 1.91 | 24.5 | 6.0 - 16.0 |
| PZ1-18 ⁴ | 342301.3 | 1549184.7 | 2 | 2.25 | -0.29 | 40.0 | 30.0 - 40.0 |
| PZ1-21 ⁴ | 342359.0 | 1549452.0 | 2 | 2.28 | -0.09 | 40.0 | 30.0 - 40.0 |

Notes:

¹ ToC referenced to survey was conducted during November 2002, with the exception of W1-12R and W1-1R, which were surveyed in October 2003 and November 2004, respectively.

² W1-1 was decommissioned and recontructed as W1-1R on August 13, 2004.

³ W1-22 and W1-23 are collection trench wells and not groundwater monitoring wells.

⁴ PZ1-18 and PZ1-21 are piezometers and not groundwater monitoring wells.

Positions were determined using NASA Ames Research Center Control Monument ARC-32, a disc set flush in concrete, 6.5 feet north of northeast edge of pavement (Patrol Road) and 75 feet east of Perimeter Road, and 2.5 feet west of the chain-link fence.

Northings and eastings are shown in NAD27, elevations are shown in NGVD29.

Measuring point is recorded from top of well casing.

The screen interval for replacement wells W1-1R and W1-12R are similar to those of the original wells they replaced (within 1 foot of the screen interval for the original wells).

Abbreviations and Acronyms:

bgs - below ground surface

GS - ground surface

NAD - North American Datum

NAS - Naval Air Station

NASA - National Aeronautics and Space Administration

NGVD - National Geodetic Vertical Datum

ToC - top of casing

gas vents, perimeter landfill gas monitoring wells, the landfill gas-venting trench and gas vents, collection trench and collection trench wells, and groundwater monitoring wells and piezometers. Site 1 inspections were conducted in January, February, May, August, and November 2004. Inspection checklists and maintenance activities are provided in Appendix H.

Santa Clara County Department of Environmental Health (DEH) also inspects the Site 1 Landfill quarterly. No problems or deficiencies were noted during DEH inspections. The DEH inspection reports are provided in Appendix H.

1.3 BASIS OF DATA EVALUATION

Remedial activities at Moffett are conducted as part of the Installation Restoration Program (IRP) established by the Department of Defense to identify, evaluate, and control the spread of contaminants from historical hazardous waste sites. The Site 1 Landfill is in OU1. The content of this report meets the requirements stated in the ROD (Navy, 1997) for OU1 and the California Code of Regulations, Title 27, Subchapter 3.

The ROD for OU1 (Navy, 1997) summarizes site characteristics and risks, describes and evaluates the remedial alternatives, identifies the selected remedy, and identifies statutory determinations (including compliance with applicable or relevant and appropriate requirements). The major elements of the selected remedy for the Site 1 Landfill are a landfill cap, landfill gas-venting trench, subsurface collection trench, groundwater and methane monitoring, institutional controls, and post-closure maintenance. Remedial actions were completed in November 1998, and methane and groundwater monitoring began in 1999.

The evaluation of Site 1 groundwater analytical results presented in this report was conducted in accordance with the Tech Memo (TtFW, 2004). The Tech Memo documented the groundwater detection monitoring program, calculated concentration limits (CCLs), and described the statistical evaluation process for the Site 1 Landfill post-closure monitoring. The CCLs were developed based on ecological screening criteria and site-specific attenuation factors for the groundwater. These CCLs are used as initial screening criteria in the groundwater evaluation. If analytical results are less than the CCLs, then no additional evaluation is required, and there is no release from the landfill. If CCLs are exceeded, then additional evaluation of upgradient (background) and downgradient data is conducted to determine whether there has been a release from the landfill. Appendices A and B of this document contain the field sampling data and analytical summary and CCL evaluation tables.

1.4 REPORT ORGANIZATION

This report is divided into the following sections:

- **Section 1.0: Introduction**, presents the site location, monitoring and maintenance activities, the basis of the data evaluation, and the report organization

- **Section 2.0: Groundwater Hydraulics**, presents the Site 1 groundwater gradient, flow direction, and water level trends
- **Section 3.0: Groundwater Sampling**, summarizes the Site 1 groundwater analytical data and presents the results of the evaluation of the groundwater data
- **Section 4.0: Methane Monitoring**, summarizes the Site 1 methane monitoring data in the landfill gas monitoring wells, the landfill gas vents, and the perimeter gas monitoring points
- **Section 5.0: Conclusions**, presents the conclusions and recommendations
- **Section 6.0: References**, presents the references for this report
- **Tables and figures** are incorporated into the text
- **Appendix A**, contains the field sampling data sheets
- **Appendix B**, contains a summary of the analytical tables and the CCL tables
- **Appendix C**, presents the Site 1 groundwater validated analytical results
- **Appendix D**, provides hydrographs of the Site 1 groundwater monitoring wells, piezometers, and collection trench wells
- **Appendix E**, provides time-series concentration graphs of monitoring points for each constituent of concern that was detected in 2004
- **Appendix F**, provides time-series methane concentration graphs of the landfill gas monitoring wells and landfill gas vents
- **Appendix G**, provides documentation of the construction of monitoring well W1-1R
- **Appendix H**, provides the 2004 Santa Clara County landfill inspection reports and the general site inspection reports
- **Appendix I**, presents the Response to Comments

2.0 GROUNDWATER HYDRAULICS

This section describes the Site 1 hydrogeology, groundwater gradient and flow direction, and water level trends.

The stratigraphy of the Site 1 Landfill is a complex interfingering of fine-grained units representing the boundary between alluvial and estuarine environments and fluctuations of the boundary caused by changes in sea level. Lithologic logs from shallow well borings indicate that the uppermost materials (zero to 60 feet below ground surface) are comprised of silts to silty clays, which are brown to black and moderately plastic in nature. Intermittent throughout the upper 60 feet are interfingered silty sands and clayey gravels, which are medium gray to black or brown. These materials are present as lenses or stringers and are not consistent laterally or vertically throughout the site.

Most of the groundwater elevations in the Site 1 Landfill groundwater monitoring wells are below mean sea level. The vadose zone, between the saturated zone and the land surface, consists of either imported fill material or clayey soils.

Shallow subsurface soil samples within the Site 1 Landfill and surrounding the site, taken below the landfill but above the permeable lenses within the upper portion of the shallow aquifer, were tested for porosity and permeability. The results indicate that soils below the landfill and above the shallow aquifer are generally clays with hydraulic conductivity values in the 10^{-8} centimeter-per-second range.

Groundwater in the upper portion of the shallow aquifer beneath the landfill generally flows north to south (Tetra Tech FW, Inc. [TtFW], 2004). The regional groundwater flow direction is south to north toward San Francisco Bay. The southward gradient underlying the Site 1 Landfill is opposite from the regional gradient because of active pumping of the Moffett storm drainage system. Pumping occurs at Building 191, located south of the Site 1 Landfill (see Figure 1-2). Building 191 began operating in the early 1950s. It consists of a subsurface concrete-lined vault, equipped with a passive pump, and receives water from nearby ditches and a French drain system underneath the runways (Tetra Tech EM, Inc., 2000). The pump station influences local groundwater gradients and reverses the local natural groundwater flow direction because the drainage system that feeds the pump station is below the water table in some areas.

Three water bodies are proximal to the Site 1 Landfill: the man-made ephemeral Stormwater Retention Pond to the north, Former Jagel Slough to the southeast, and a saltwater evaporation pond to the east. It appears that low-permeability barriers exist between the water bodies and the Site 1 Landfill, limiting subsurface water movement (Navy, 1997). As a result, head differences are maintained between each water body (International Technology Corporation, 1993). Potential

for flow from the landfill to the other bodies exists, but these restrictive barriers limit actual flow. Low-hydraulic conductivity, high-organic contents associated with the clays, and low-contaminant source concentrations combine to restrict flow and limit potential contaminant migration (Navy, 1997).

2.1 GROUNDWATER GRADIENT AND FLOW DIRECTION

Field activities, conducted at the Site 1 Landfill in 2004, included seven water level gauging events at monitoring wells, piezometers, and collection trench wells prior to each sampling event (Table 2-1). This section describes the collection of 2004 water level measurements and summarizes groundwater flow direction beneath the Site 1 Landfill. Figure 2-1 shows the locations for Site 1 water level measurements.

Measurements of depth to groundwater were made using an electronic measuring tape with markings every hundredth of a foot. All water levels were measured within a 24-hour period. Measurements were subtracted from surveyed measuring point elevations to calculate the groundwater level elevations.

Depth to groundwater measurements were collected from 12 monitoring wells, 2 piezometers, and 2 collection trench wells at the Site 1 Landfill on:

- March 22, 2004
- May 24, 2004
- August 18, 2004
- September 27, 2004
- November 8, 2004
- December 13, 2004

Depth to groundwater measurements were also collected on July 6, 2004. However, only the wells that were sampled were gauged for depth to groundwater measurements.

Groundwater elevations for all Site 1 Landfill groundwater measurements were below sea level for 2004. The potentiometric surfaces of the upper portion of the shallow aquifer, shown on Figure 2-2 through Figure 2-8, were based on groundwater elevations in monitoring wells of similar construction and screened in the upper portion of the shallow aquifer. For example, PZ1-18 and PZ1-21 and wells W1-6 and W1-7 were not included because they are screened at greater depths than the other wells and are not considered representative of the groundwater elevations in the upper portion of the shallow aquifer. In addition, collection trench wells W1-22 and W1-23 were not included, as they are screened within the collection trench north of the landfill and are not considered representative of groundwater elevations.

TABLE 2-1

**2004 GROUNDWATER ELEVATIONS
FORMER NAS MOFFETT FIELD**

| Location | ToC Elevation (ft msl) | March 22, 2004 Depth to Water ¹ (ft) | March 22, 2004 Water Elevation (ft msl) | May 24, 2004 Depth to Water ¹ (ft) | May 24, 2004 Water Elevation (ft msl) | July 6, 2004 Depth to Water ¹ (ft) | July 6, 2004 Water Elevation (ft msl) | August 18, 2004 Depth to Water ¹ (ft) | August 18, 2004 Water Elevation (ft msl) |
|---------------------|------------------------------|-------------------------------------------------------|-----------------------------------------------|-----------------------------------------------------|---------------------------------------------|-----------------------------------------------------|---------------------------------------------|--------------------------------------------------------|------------------------------------------------|
| W1-1 ² | 2.16 | 4.87 | -2.71 | 3.22 | -1.06 | 5.48 | -3.32 | NA | NA |
| W1-1R ² | 4.83 | NA | NA | NA | NA | NA | NA | 8.41 | -3.58 |
| W1-5 | 3.02 | 5.00 | -1.98 | 5.29 | -2.27 | 5.50 | -2.48 | 5.83 | -2.81 |
| W1-6 | -0.56 | 1.72 | -2.28 | 2.36 | -2.92 | NM | NM | 2.61 | -3.17 |
| W1-7 | 0.24 | 2.62 | -2.38 | 2.99 | -2.75 | NM | NM | 3.49 | -3.25 |
| W1-8 | 2.95 | 5.11 | -2.16 | 5.38 | -2.43 | 5.52 | -2.57 | 5.89 | -2.94 |
| W1-12R | 0.17 | 2.38 | -2.21 | 2.40 | -2.23 | 2.93 | -2.76 | 3.16 | -2.99 |
| W1-14 | 2.46 | 5.05 | -2.59 | 5.46 | -3.00 | 5.75 | -3.29 | 5.95 | -3.49 |
| W1-15 | 2.60 | 5.16 | -2.56 | 4.55 | -1.95 | 5.80 | -3.20 | 6.09 | -3.49 |
| W1-16 | 3.82 | 6.37 | -2.55 | 9.45 | -5.63 | 6.90 | -3.08 | 7.75 | -3.93 |
| W1-19 | 1.98 | 5.63 | -3.65 | 5.03 | -3.05 | 5.33 | -3.35 | 4.55 | -2.57 |
| W1-20 | 2.72 | 5.37 | -2.65 | 5.76 | -3.04 | NM | NM | 6.22 | -3.50 |
| W1-22 ³ | 1.12 | 3.45 | -2.33 | 3.52 | -2.40 | 3.62 | -2.50 | 3.73 | -2.61 |
| W1-23 ³ | 0.83 | 4.64 | -3.81 | 5.35 | -4.52 | 5.47 | -4.64 | 5.30 | -4.47 |
| W1-24 | 4.27 | 6.65 | -2.38 | 6.95 | -2.68 | 7.20 | -2.93 | 7.50 | -3.23 |
| PZ1-18 ⁴ | 2.25 | 4.77 | -2.52 | 5.14 | -2.89 | NM | NM | 5.30 | -3.05 |
| PZ1-21 ⁴ | 2.28 | 4.92 | -2.64 | 5.28 | -3.00 | NM | NM | 5.80 | -3.52 |

TABLE 2-1

**2004 GROUNDWATER ELEVATIONS
FORMER NAS MOFFETT FIELD**

| Location | ToC Elevation (ft msl) | September 27, 2004 Depth to Water ¹ (ft) | September 27, 2004 Water Elevation (ft msl) | November 8, 2004 Depth to Water ¹ (ft) | November 8, 2004 Water Elevation (ft msl) | December 13, 2004 Depth to Water ¹ (ft) | December 13, 2004 Water Elevation (ft msl) |
|---------------------|------------------------------|-----------------------------------------------------------|---------------------------------------------------|---------------------------------------------------------|-------------------------------------------------|----------------------------------------------------------|--------------------------------------------------|
| W1-1 ² | 2.16 | NA | NA | NA | NA | NA | NA |
| W1-1R ² | 4.83 | 8.23 | -3.40 | 8.30 | -3.47 | 8.05 | -3.22 |
| W1-5 | 3.02 | 5.54 | -2.52 | 5.82 | -2.80 | 5.50 | -2.48 |
| W1-6 | -0.56 | 2.70 | -3.26 | 2.61 | -3.17 | 2.50 | -3.06 |
| W1-7 | 0.24 | 3.32 | -3.08 | 3.26 | -3.02 | 3.15 | -2.91 |
| W1-8 | 2.95 | 5.61 | -2.66 | 5.90 | -2.95 | 5.55 | -2.60 |
| W1-12R | 0.17 | 2.93 | -2.76 | 3.09 | -2.92 | 2.75 | -2.58 |
| W1-14 | 2.46 | 5.84 | -3.38 | 5.86 | -3.40 | 5.55 | -3.09 |
| W1-15 | 2.60 | 5.93 | -3.33 | 6.38 | -3.78 | 5.75 | -3.15 |
| W1-16 | 3.82 | 7.09 | -3.27 | 7.75 | -3.93 | 7.10 | -3.28 |
| W1-19 | 1.98 | 5.47 | -3.49 | 5.40 | -3.42 | 5.15 | -3.17 |
| W1-20 | 2.72 | 6.11 | -3.39 | 6.02 | -3.30 | 5.93 | -3.21 |
| W1-22 ³ | 1.12 | 3.79 | -2.67 | 3.75 | -2.63 | 3.80 | -2.68 |
| W1-23 ³ | 0.83 | 5.34 | -4.51 | 5.35 | -4.52 | 5.75 | -4.92 |
| W1-24 | 4.27 | 7.25 | -2.98 | 7.83 | -3.56 | 7.10 | -2.83 |
| PZ1-18 ⁴ | 2.25 | 5.38 | -3.13 | 5.27 | -3.02 | 5.20 | -2.95 |
| PZ1-21 ⁴ | 2.28 | 5.65 | -3.37 | 5.60 | -3.32 | 5.41 | -3.13 |

Note:

¹ - Depth to water may vary from field sampling data forms (Appendix A). Data were collected on separate dates.

² - W1-1 was decommissioned and reconstructed as W1-1R on August 13, 2004.

³ - W1-22 and W1-23 are collection trench wells, not groundwater monitoring wells.

⁴ - PZ1-18 and PZ1-21 are piezometers, not groundwater monitoring wells.

Abbreviations and Acronyms:

ft – feet

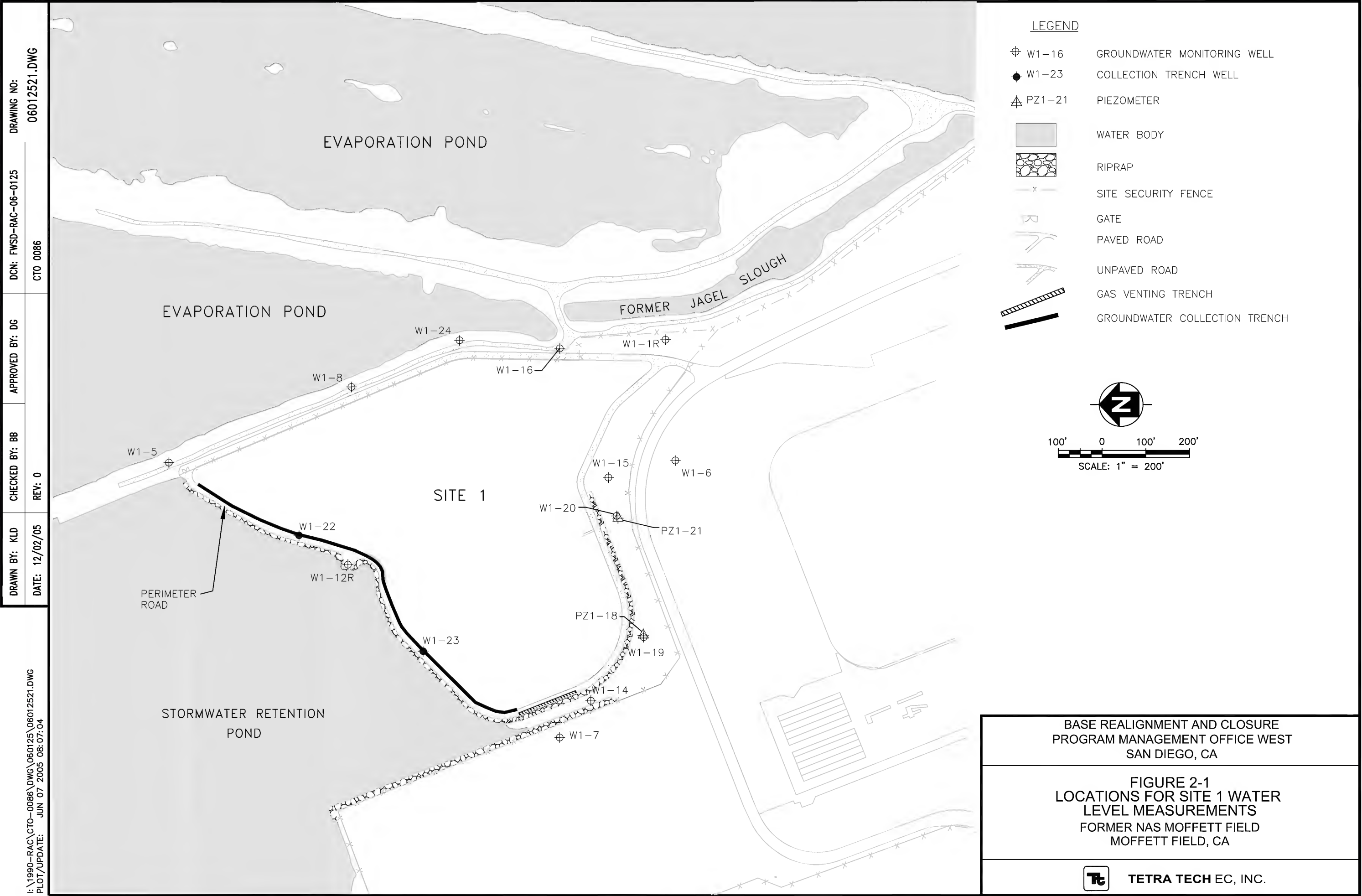
msl – mean sea level

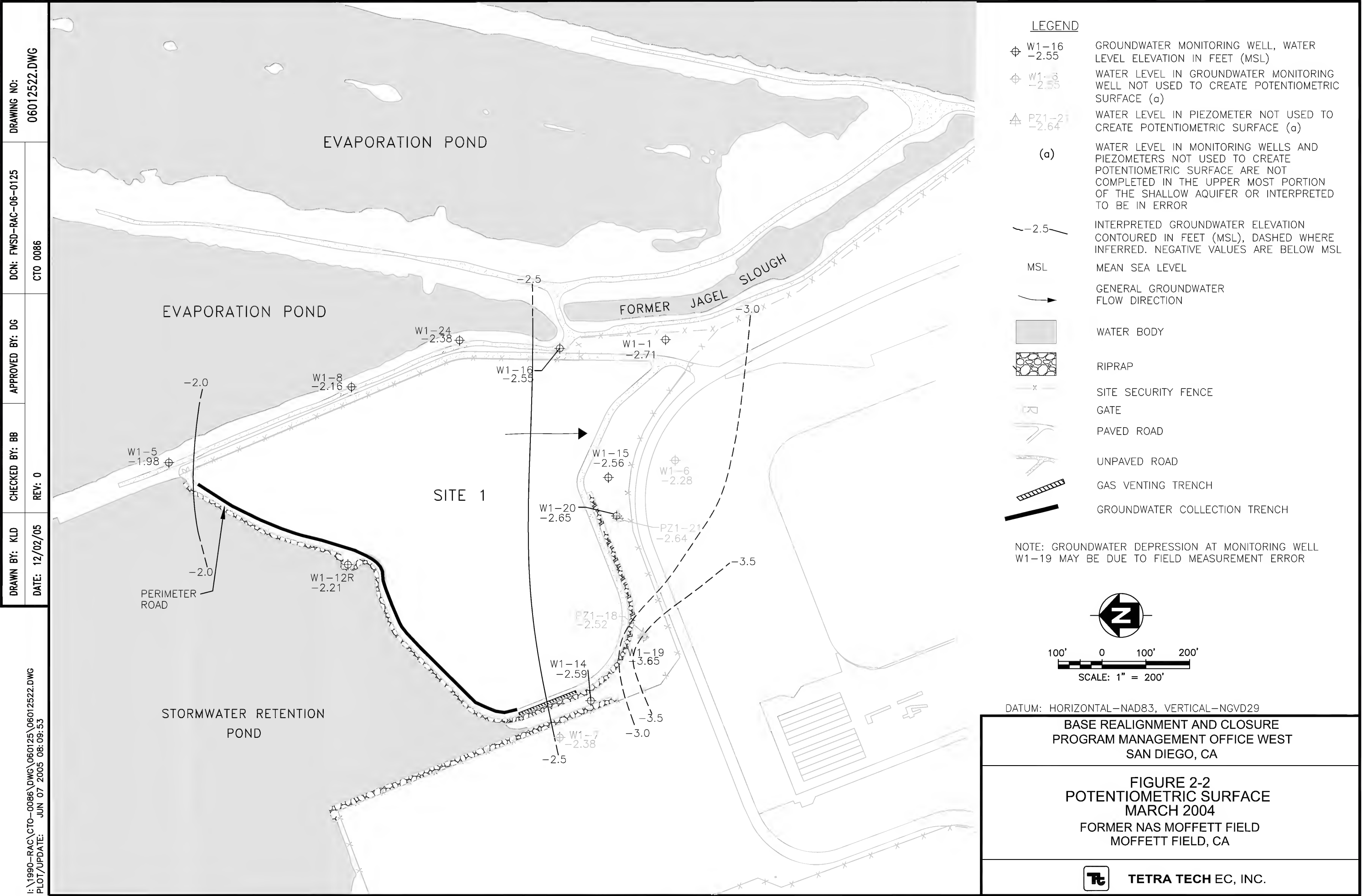
NA – not available

NAS – Naval Air Station

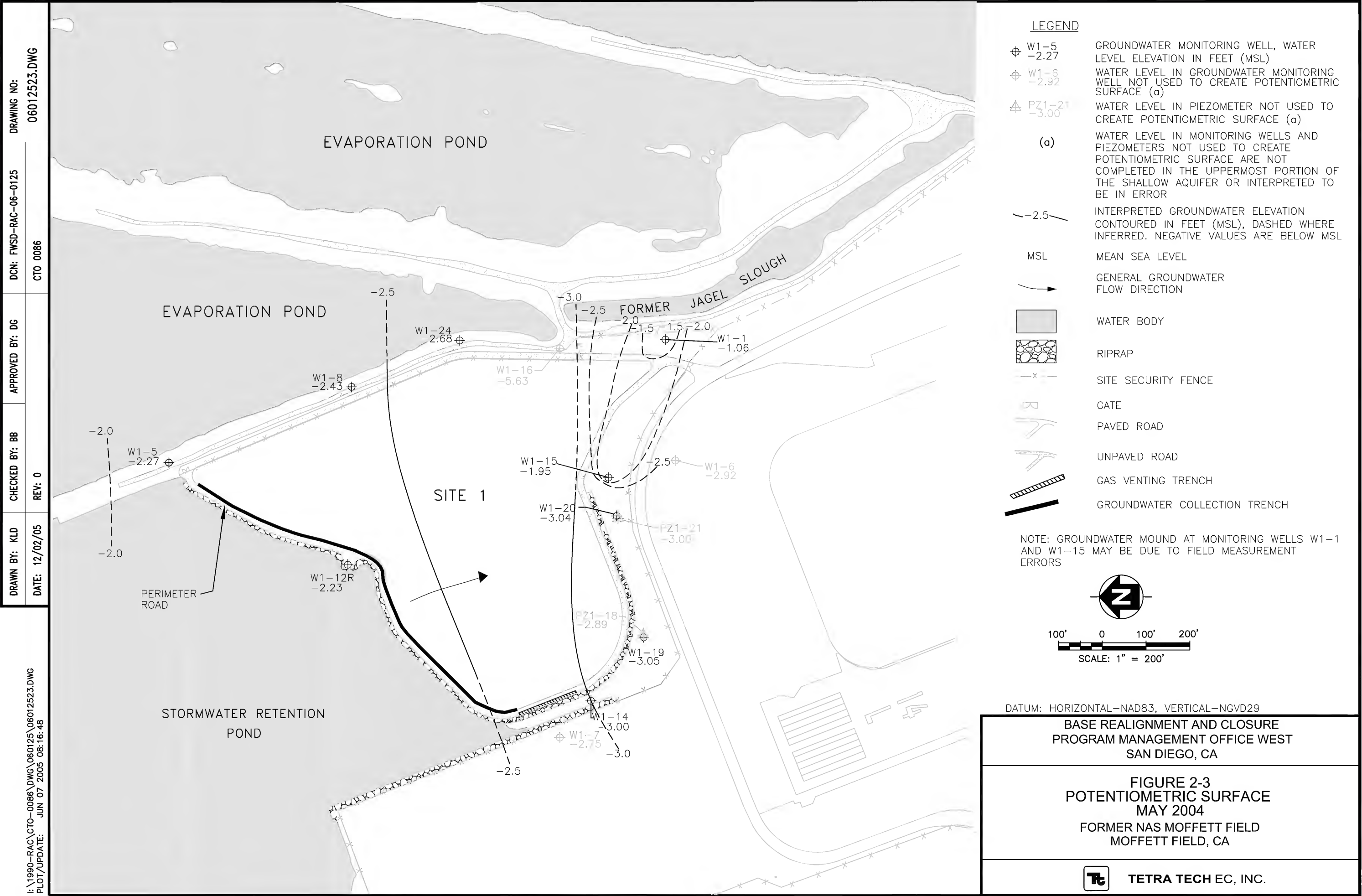
NM – not measured

ToC – top of casing

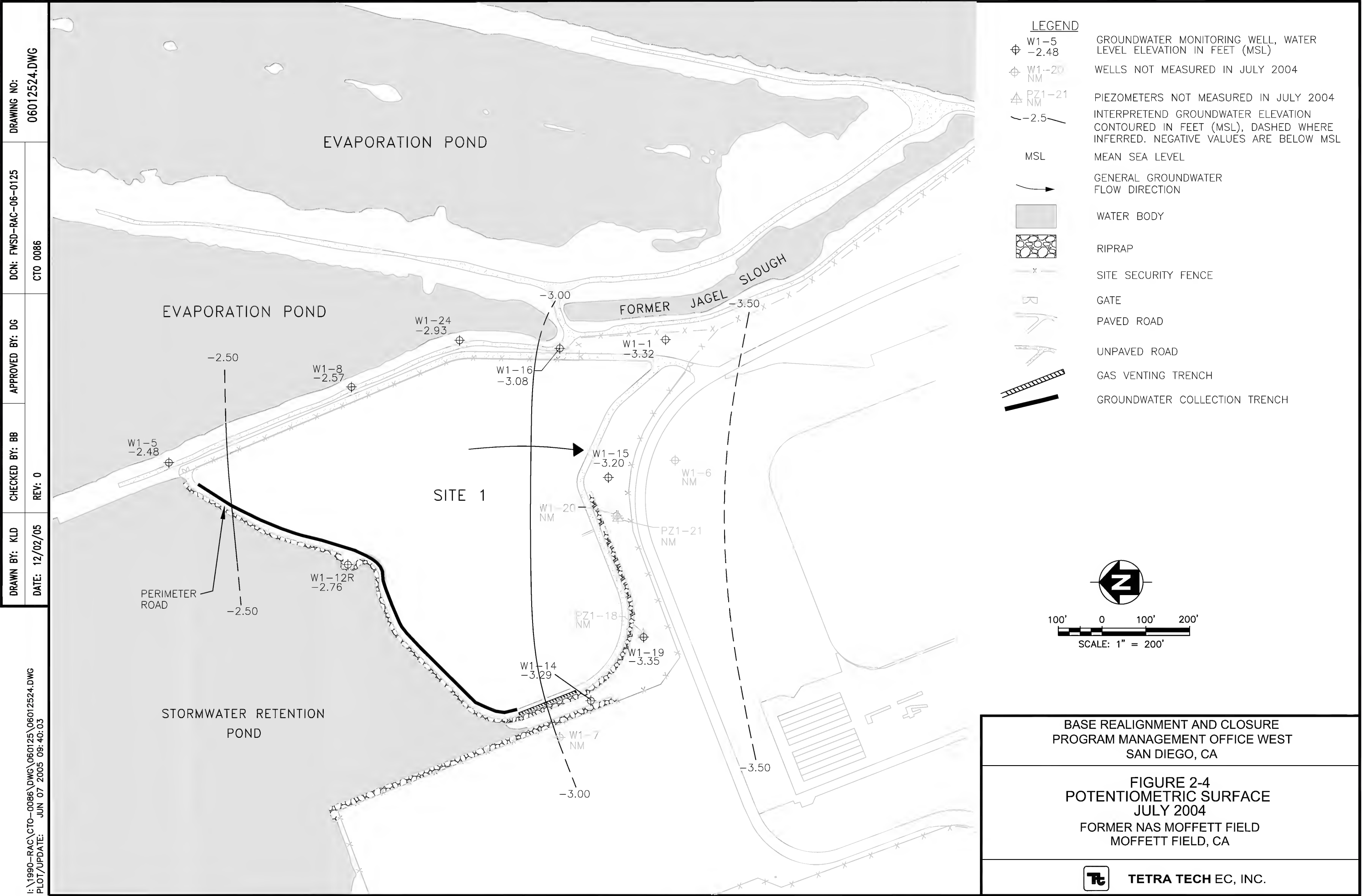




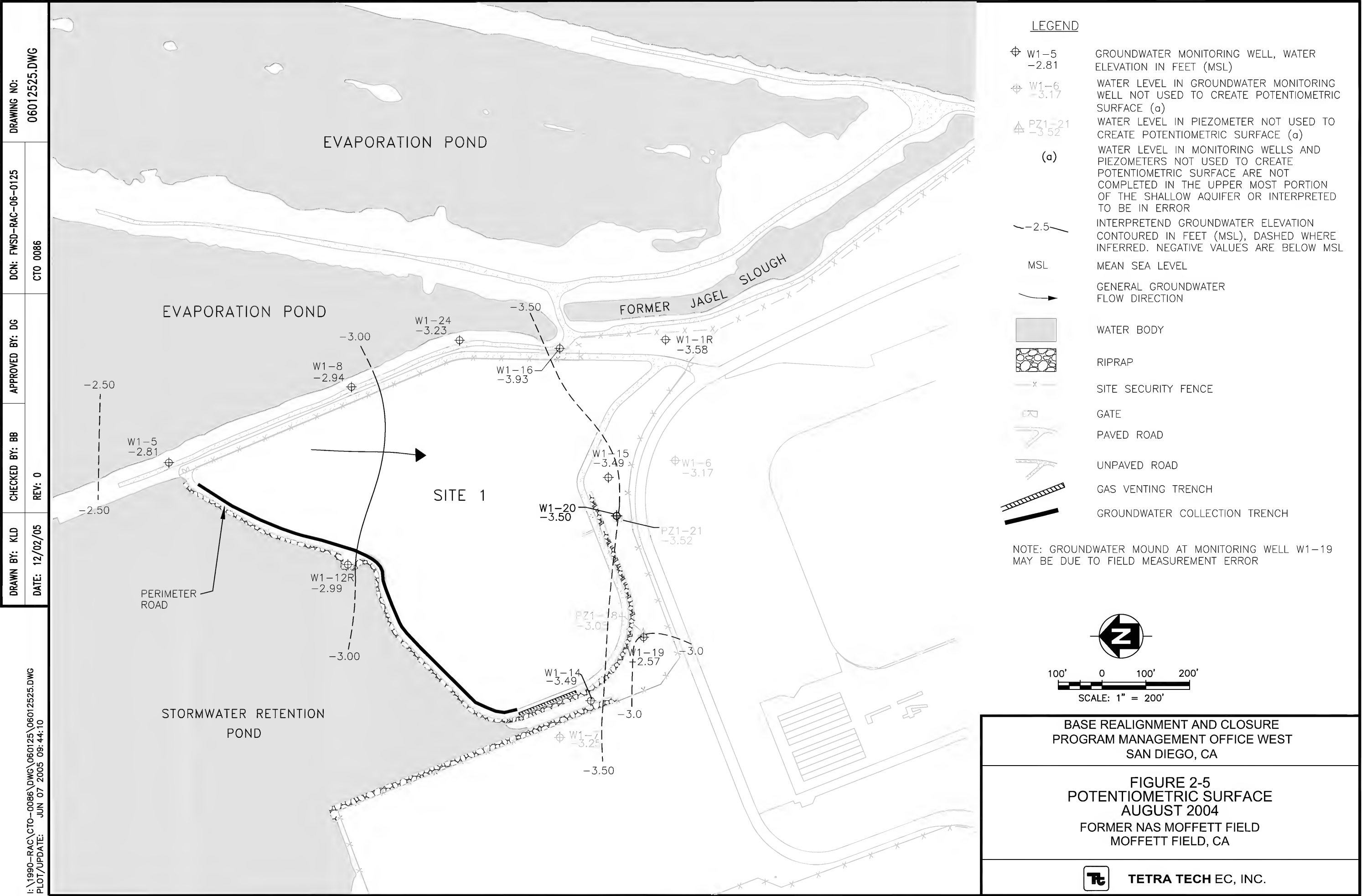
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PLOT/UPDATE: JUN 07 2005 08:09:53



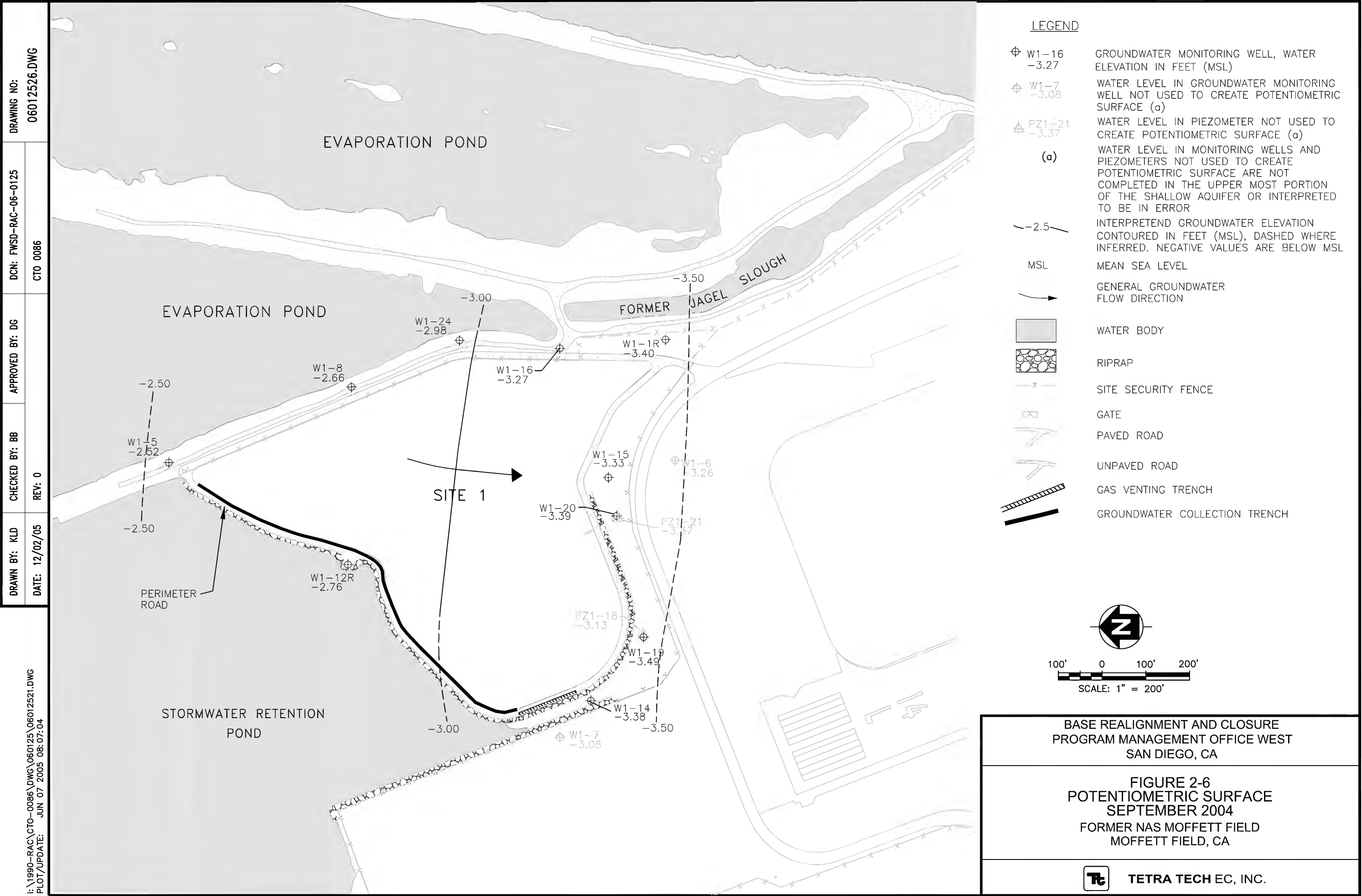
I:\1990-RAC\CTO-0086\DWG\060125\06012523.DWG
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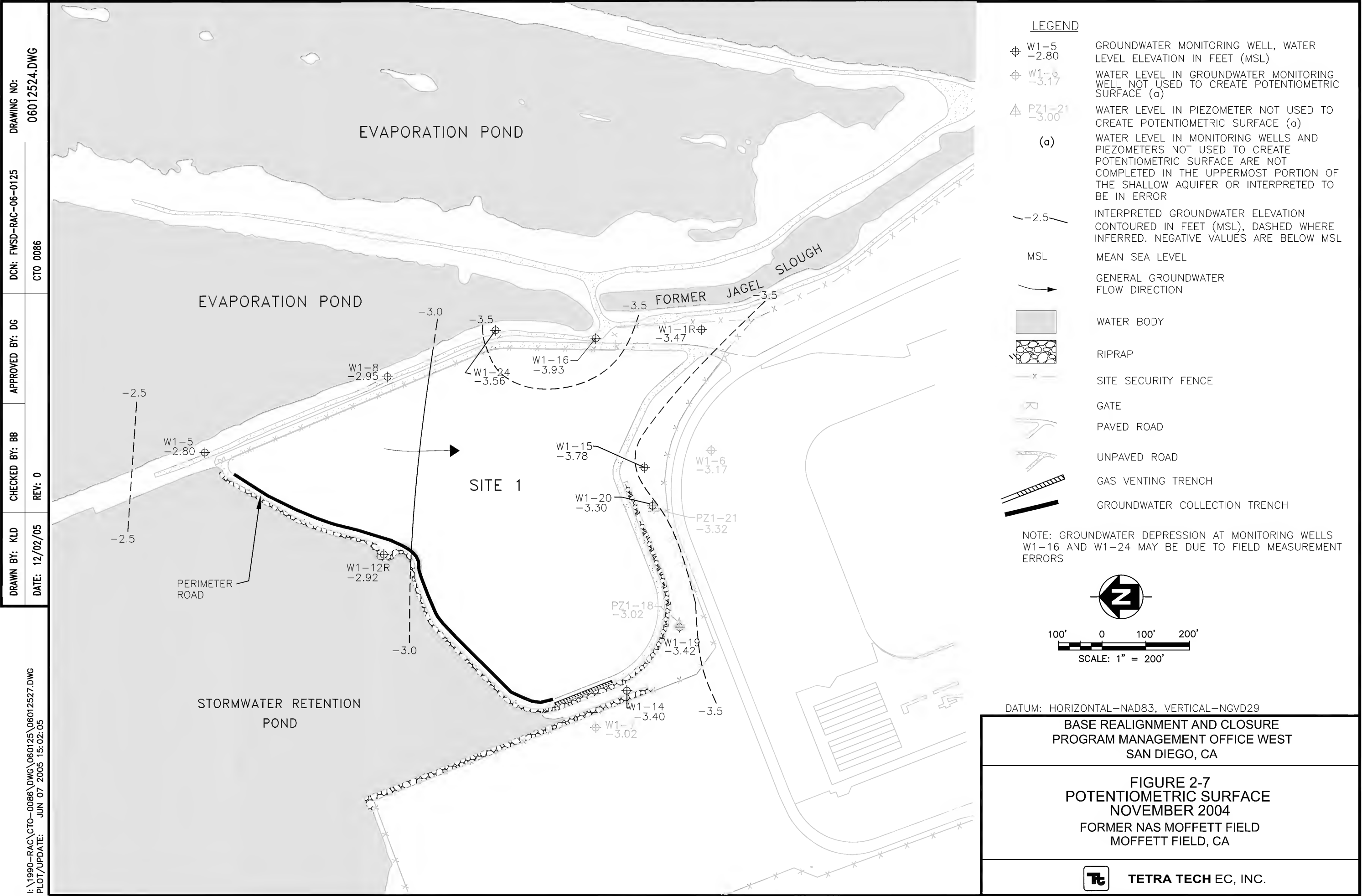
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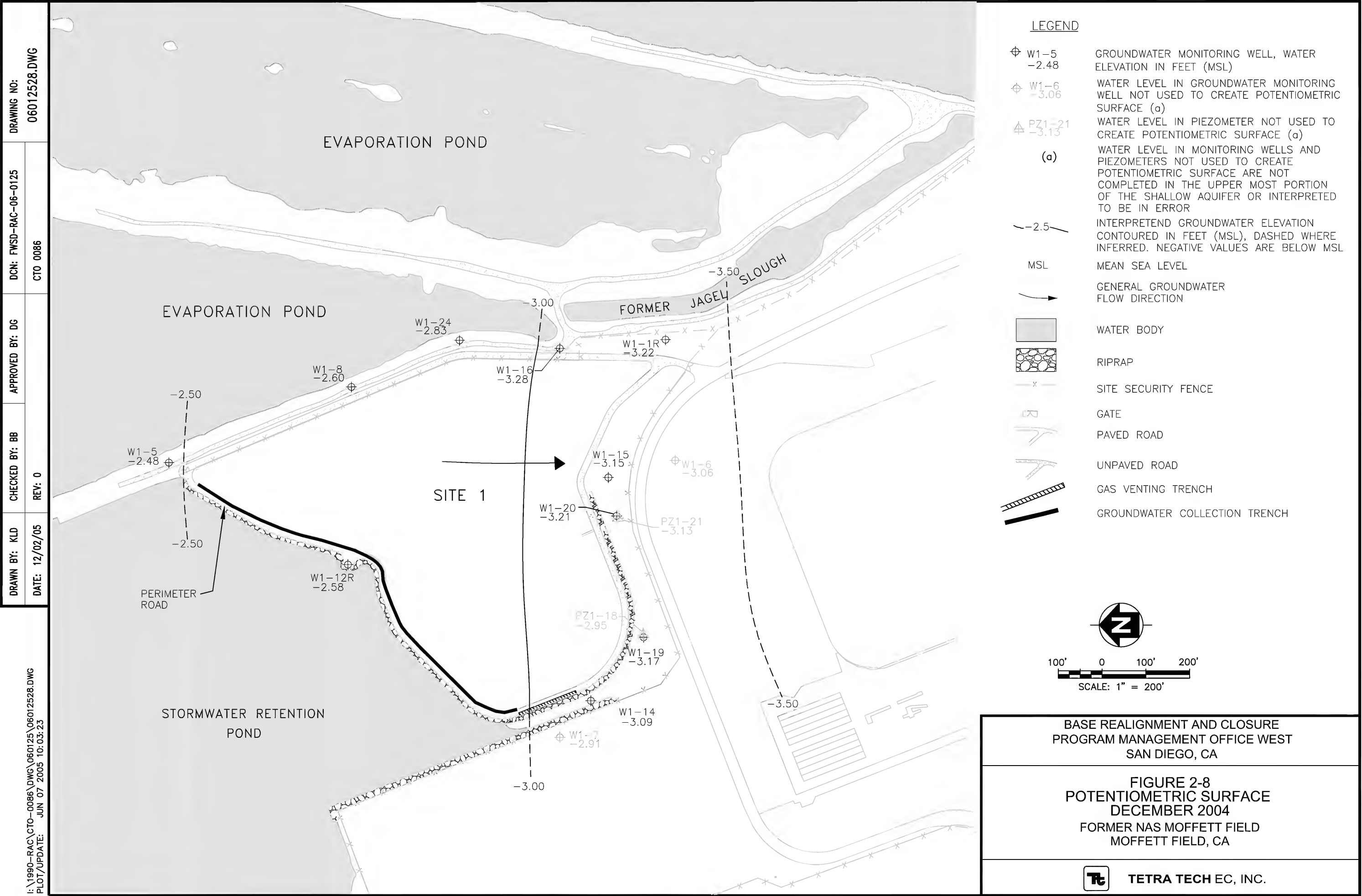
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PLOT/UPDATE: JUN 07 2005 09:44:10



I:\1990-RAC\CTO-0086\DWG\060125\06012521.DWG
PLOT/UPDATE: JUN 07 2005 08:07:04



I:\1990-RAC\CTO-0086\DWG\060125\06012527.DWG
PLOT/UPDATE: JUN 07 2005 15:02:05



I:\1990-RAC\CTO-0086\DWG\060125\06012528.DWG
PLOT/UPDATE: JUN 07 2005 10:03:23

The following monitoring wells were not included in the evaluation of the potentiometric surface:

- May 2004 – W1-16
- July 2004 – W1-20 inadvertently not measured

In May 2004, it appears that the water level measurement in well W1-16 was recorded in error.

In general, the groundwater elevations are similar to previous years. Generally, the groundwater flows from north to south at the Site 1 Landfill. The gradient from north to south (W1-5 to W1-20) is approximately:

- 0.0007 feet per foot (ft/ft) in March 2004
- 0.0008 ft/ft in May 2004
- 0.0008 ft/ft in July 2004 (W1-5 to W1-15)
- 0.0007 ft/ft in August 2004
- 0.0008 ft/ft in September 2004
- 0.0005 ft/ft in November 2004
- 0.0008 ft/ft in December 2004

The water levels in monitoring well pair W1-19/PZ1-18 (see Figure D-17 in Appendix D) show continuous upward potential (the water levels in PZ1-18 are higher than in W1-19, and PZ1-18 is completed slightly deeper in the A aquifer than W1-19) for all but the August 18, 2004, measurement since 1999. However, the water level in monitoring well W1-19 on August 18, 2004, is not consistent with the long-term trend. The water levels in monitoring well pair W1-20/PZ1-21 (see Figure D-18 in Appendix D) show a slight upward potential (the water levels in PZ1-21 are higher than in W1-20, and PZ1-21 is completed slightly deeper in the A aquifer than W1-20). Water levels in the W1-20/PZ1-21 pair have been generally within a couple hundredths of a foot of each other since 1999.

2.2 WATER LEVEL TRENDS

Appendix D contains groundwater hydrographs for the 12 monitoring wells and 2 piezometers at the Site 1 Landfill. Some monitoring wells and piezometers show a slight upward (W1-1/1R, W1-12/12R, W1-19, W1-20, PZ1-18, and PZ1-21) or slight downward (W1-16, and W1-24) long-term water level trend, while the remainder of the monitoring wells showed a flat long-term trend. All monitoring wells and piezometers show a seasonal water level variation, with a high-water level elevation near the end of the rainy season (January to March) and a low-water level elevation near the end of the dry season (August to October). Seasonal water level fluctuations generally range on the order of 0.3 to 0.5 feet.

The following water level trends were observed in 2004:

- Most monitoring wells had seasonal high-water levels in March.
- Most monitoring wells had seasonal low-water levels in August.

The seasonal water level fluctuation was on the order of 0.5 feet.

3.0 GROUNDWATER SAMPLING

Groundwater monitoring at Site 1 was conducted during 2004 in accordance with the *Site 1 Landfill Final Closure Plan and Post-Closure Maintenance Plan* (Tetra Tech EM, Inc. [TtEMI], 1998), the *Post-Closure Monitoring (Site 1) and Groundwater Monitoring (Site 2) Sampling and Analysis Plan* (International Technology Corporation [IT], 2000), the *Final Sampling and Analysis Plan Addendum for Post-Closure Monitoring (Site 1) and Groundwater Monitoring (Site 2)* (Foster Wheeler Environmental Corporation [FWENC], 2001a), and the *Final Site-Specific Contractor Quality Control Plan for Sites 1 and 2 Groundwater Monitoring and Maintenance* (FWENC, 2001b).

In response to a request from the regulatory agencies, the sampling frequency and some analyses were modified in 2004. Sampling was conducted in March, May, and November 2004 instead of quarterly. Mercury was added to the groundwater analytes list in March 2004, and mercury and semivolatile organic compounds (SVOCs) were added to the analytes list in May and November 2004. SVOCs and mercury were analyzed in supplemental groundwater sampling events in July, August, September, and December 2004 because SVOCs and mercury were not analyzed historically at Site 1. Groundwater samples were collected from nine monitoring wells, as well as from collection trench well W1-22. Collection trench well W1-23 could not be sampled due to insufficient water. Locations for Site 1 groundwater and collection trench sampling are shown in Figure 3-1. Field sampling data sheets for the March, May, and November 2004 groundwater sampling events are included in Appendix A.

Supplemental groundwater sampling was accomplished in July, August, September, and December 2004. The supplemental groundwater sampling was conducted to develop the database required for the *Final Technical Memorandum, Site 1 Groundwater Evaluation Process* (Tech Memo) (Tetra Tech FW, Inc. [TtFW], 2004) evaluation of dissolved mercury and the SVOCs. Field sampling data sheets for the supplemental groundwater sampling events are included in Appendix A.

3.1 ANALYTICAL RESULTS

Appendix B of this document presents the analytical summary tables for regular and supplemental samples collected in 2004. Appendix C of this document presents the validated analytical data. Analytical testing for 2004 changed after the approval of the Tech Memo (TtFW, 2004), as described in the following section.

3.1.1 Analytical Testing

Groundwater samples collected in March 2004 at the Site 1 Landfill were analyzed for the following:

- Volatile organic compounds (VOCs), using United States Environmental Protection Agency (EPA) Method 8260B
- Pesticides and polychlorinated biphenyls (PCBs), using EPA Methods 8081A/8082
- Total and dissolved metals, including mercury, using EPA Method 6010B
- Nitrate/nitrite as nitrogen, using EPA Method 353.1
- Total organic carbon, using EPA Method 415.1

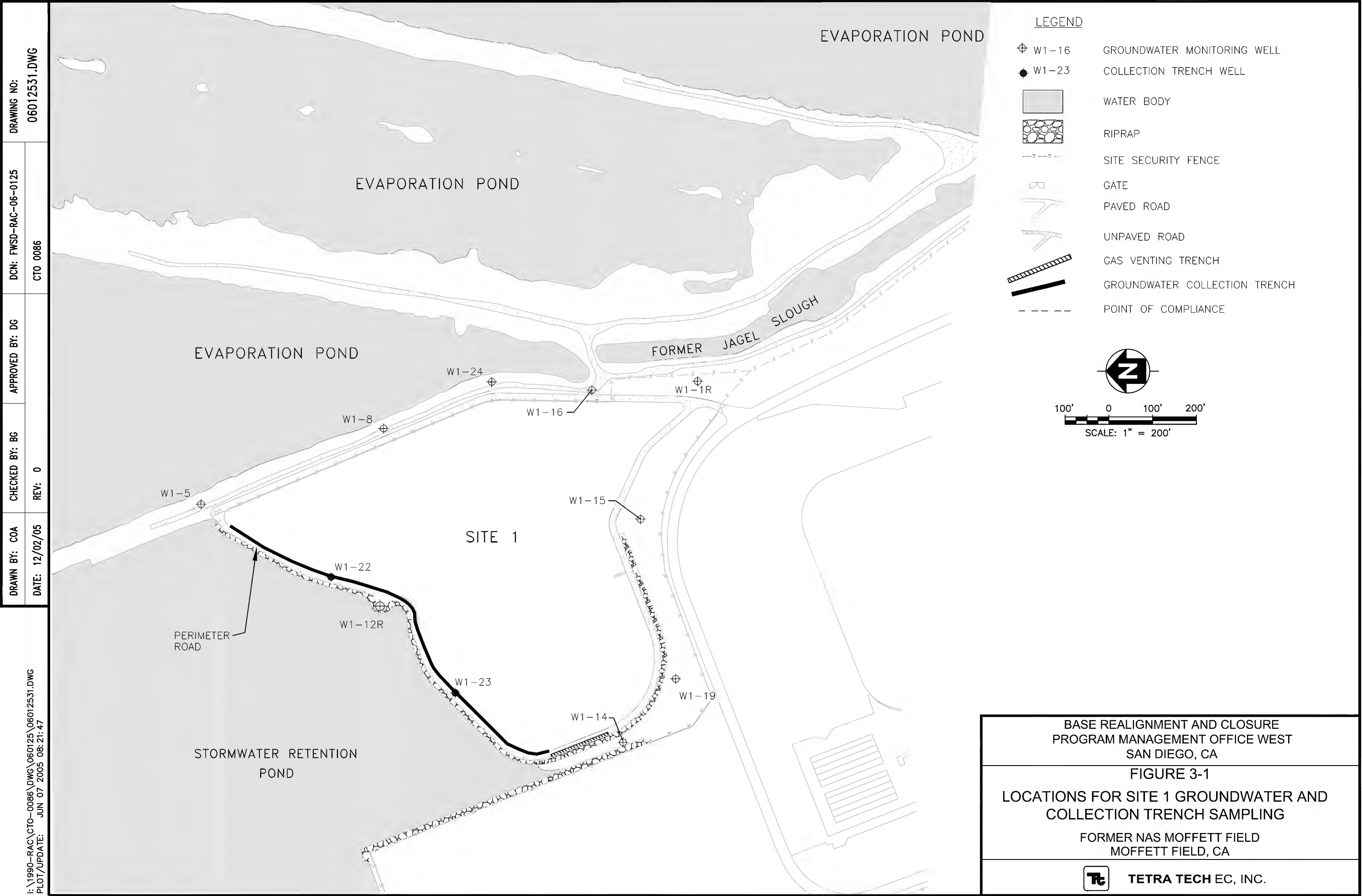
Groundwater samples collected in May and November 2004 at the Site 1 Landfill were analyzed for the following:

- VOCs using EPA Method 8260B
- Pesticides and PCBs using EPA Methods 8081A/8082
- Dissolved metals using EPA Method 200.8, except for dissolved mercury, which was analyzed by EPA Method 7470A
- SVOCs using EPA Method 8270C

Supplemental groundwater samples collected in July, August, September, and December 2004, at the Site 1 Landfill were analyzed for the following:

- Dissolved mercury using EPA Method 7470A
- SVOCs using EPA Method 8270C

Twelve samples, including two duplicate samples, were collected from nine groundwater monitoring wells and one collection trench well at the Site 1 Landfill for each sampling event. The analytical results from the collection trench well W1-22 are not considered representative of chemical concentrations of the shallow aquifer. The collection trench wells were not designed to monitor groundwater at the site. The collection trench wells are screened in a collection trench, located on the north side of the landfill, which was installed to protect the adjacent Stormwater Retention Pond. The collection trench wells are shallow and screened in permeable fill material placed in the collection trench. An impermeable barrier was installed on the north side of the collection trench to inhibit groundwater influence. Because of well construction relative to the collection trench and the shallow aquifer, the collection trench wells are not considered to be useful monitoring points for collecting representative samples of groundwater conditions. However, the collection trench wells are sampled at the same frequency as the monitoring wells in accordance with the Record of Decision (ROD) requirements.



3.1.2 Statistical Evaluation

In accordance with the Tech Memo (TtFW, 2004), total metals are not included in the detection monitoring program at Site 1. Therefore, only dissolved metals are discussed in the remainder of this report.

Table 3-1 presents the constituents of concern and the calculated concentration limits (CCLs), as detailed in the Tech Memo (TtFW, 2004). CCLs were developed based on ecological screening criteria and site-specific attenuation factors for the groundwater. These CCLs are used as initial screening criteria in the groundwater data evaluation. If analytical results are less than the CCLs, then no additional evaluation is required, and there is no release from the landfill. If CCLs are exceeded, then additional evaluation of the upgradient (background) and downgradient data is conducted to determine whether there has been a release from the landfill. If upgradient concentrations are higher than downgradient concentrations, there is no release from the landfill. Conversely, if downgradient concentrations are higher than upgradient concentrations, additional sampling events are conducted and evaluated to determine whether there has been a release from the landfill. Tables 3-2 through 3-4 present the analytes detected in groundwater samples from monitoring wells and the collection trench at Site 1 during March, May, and November 2004 sampling events.

3.1.3 Visual Trends

Appendix E contains groundwater monitoring point data graphs for monitoring wells and collection trench wells, with at least one detection in 2004, and a total of at least three historical detected concentrations (1999 through 2004). Groundwater monitoring point data graphs are specified in California Code of Regulations, Title 27, Section 20415(e)(14). The graphs in Appendix E are provided on CD only. Trends were determined by visually evaluating the graphs for increasing concentration trends, decreasing concentration trends, or relatively consistent (flat) concentration trends.

Barium, calcium, magnesium, manganese, nickel, potassium, and sodium were all detected at least once in 2004, with at least three historical detected concentrations (1999 through 2004) in samples from every Site 1 groundwater monitoring well. With the exception of barium concentrations in samples from monitoring wells W1-5, W1-8, and W1-12/W1-12R, there were flat visual trends in the concentrations. Monitoring wells W1-5, W1-8, and W1-12/W1-12R, which are all upgradient (background wells), show an increasing concentration trend. Arsenic, cadmium, cobalt, copper, iron, and zinc were found in samples from most, but not all of the Site 1 Landfill monitoring wells. There was a flat visual trend in the concentrations for arsenic, cadmium, cobalt, copper, iron, and zinc. All of these metals are found in seawater (Hem, 1971) and are considered part of the composition of natural groundwater at the Site 1 Landfill.

Antimony, beryllium, chromium, lead, silver, and thallium were all detected at least once in 2004, with at least three historical detected concentrations (1999 through 2004) in samples from

a few of the Site 1 groundwater monitoring wells. There were flat visual trends in the concentrations. All of these metals are also found in seawater (Hem, 1971) and are considered part of the composition of natural groundwater at the Site 1 Landfill.

Carbon disulfide was detected once in 2004, with at least three historical detected concentrations (1999 through 2004) in samples from groundwater monitoring well W1-5 (an upgradient monitoring well). There was a flat visual trend in the carbon disulfide concentrations in samples from monitoring well W1-5. Carbon disulfide is ubiquitous throughout the environment and is likely naturally occurring in the reducing conditions underlying the Site 1 Landfill (TtFW, 2004).

Toluene was detected once in 2004, with a total of at least three historical detected concentrations (1999 through 2004) in samples from groundwater monitoring well W1-1/W1-1R (a downgradient monitoring well). There was a flat visual trend in the toluene concentrations in samples from monitoring well W1-1/W1-1R. No other VOCs, SVOCs, or pesticides were detected in 2004. There was a total of at least three historically detected concentrations (1999 through 2004) in samples from a Site 1 groundwater monitoring well.

3.2 GROUNDWATER QUALITY EVALUATION

Results from the 2004 groundwater sampling events are tabulated in Tables B-8 through B-10 in Appendix B of this document and summarized below.

3.2.1 March 2004 Sampling Event

During the March 2004 sampling event, only four dissolved metals (aluminum, barium, chromium, and zinc), two VOCs (acetone and carbon disulfide), and six pesticides (4,4-dichlorodiphenyldichloroethane [4,4-DDD], alpha-benzene hexachloride [alpha-BHC], beta-BHC, delta-BHC, dieldrin, and heptachlor) were detected in samples from monitoring wells at concentrations greater than their respective laboratory reporting levels (see Table 3-2). The following details how aluminum, barium, and chromium exceeded their respective CCLs:

- The aluminum CCL was exceeded only in a sample from downgradient monitoring well W1-16. The exceedance was at a concentration greater than historical background levels. Aluminum was placed on the observation list for confirmation of a CCL exceedance over the next two regularly scheduled sampling rounds. Aluminum was not detected in samples from any monitoring well exceeding a CCL in May or November and thus is considered a false positive.
- The barium CCL was exceeded in samples from every monitoring well. However, all CCL exceedances either occurred in samples from a background well or were less than historical background values, and thus were removed from further consideration.
- Chromium was detected in only the duplicate sample at an estimated concentration in a sample from upgradient monitoring well W1-8. The chromium CCL was exceeded in a sample from a background well and thus was removed from further consideration.

TABLE 3-1

**CONSTITUENTS OF CONCERN AND CALCULATED CONCENTRATION LIMITS
FORMER NAS MOFFETT FIELD**

| COC | MDL ^a (µg/L) | SQL ^a (µg/L) | Calculated Concentration Limit (µg/L) |
|-----------------------------|----------------------------|----------------------------|------------------------------------------|
| <i>Metals</i> | | | |
| Aluminum | 6.2 | 300 | 870.00 |
| Antimony | 0.11 | 3 | 50,000.00 |
| Arsenic | 0.22 | 1 | 89.64 |
| Barium | 0.18 | 10 | 40.00 |
| Beryllium | 0.18 | 1 | 6.60 |
| Cadmium | 0.2 | 1 | 930.00 |
| Chromium | 0.19 | 1 | 71.50 |
| Cobalt | 0.2 | 1 | 230.00 |
| Copper | 0.19 | 1 | 5.15 |
| Lead | 0.19 | 1 | 810.00 |
| Mercury | 0.15 | 0.5 | 94.00 |
| Nickel | 0.22 | 1 | 820.00 |
| Selenium | 0.4 | 1 | 71.00 |
| Silver | 0.22 | 1 | 0.22 |
| Thallium | 0.19 | 1 | 21,300.00 |
| Vanadium | 0.21 | 1 | 200.00 |
| Zinc | 0.26 | 10 | 8,100.00 |
| <i>VOCs</i> | | | |
| 1,1,1,2-Tetrachloroethane | 0.2 | 0.5 | 7,892.50 |
| 1,1,1-Trichloroethane | 0.2 | 0.5 | 6,801.60 |
| 1,1,2,2-Tetrachloroethane | 0.3 | 1 | 5,339.84 |
| 1,1,2-Trichloroethane | 0.2 | 0.5 | 162.00 |
| 1,1-Dichloroethane | 0.2 | 0.5 | 6.25 |
| 1,1-Dichloroethene | 0.2 | 0.5 | 7.08 |
| 1,1-Dichloropropene | 0.2 | 0.5 | 182.49 |
| 1,2,3-Trichlorobenzene | 0.2 | 0.5 | 12,900.00 |
| 1,2,3-Trichloropropane | 0.2 | 0.5 | 6.39 |
| 1,2,4-Trichlorobenzene | 0.2 | 0.5 | 12,900.00 |
| 1,2,4-Trimethylbenzene | 0.2 | 0.5 | 4,300.00 |
| 1,2-Dibromo-3-chloropropane | 1 | 2 | 6,976.00 |
| 1,2-Dichlorobenzene | 0.2 | 0.5 | 10,707.00 |
| 1,2-Dichloroethane | 0.2 | 0.5 | 12,882.00 |
| 1,2-Dichloropropane | 0.2 | 0.5 | 5.45 |
| 1,3,5-Trimethylbenzene | 0.2 | 0.5 | 4,300.00 |
| 1,3-Dichlorobenzene | 0.2 | 0.5 | 589.30 |
| 1,3-Dichloropropane | 0.2 | 0.5 | 390.10 |
| 1,4-Dichlorobenzene | 0.2 | 0.5 | 10,707.00 |
| 2,2-Dichloropropane | 0.2 | 0.5 | 5.45 |

TABLE 3-1

**CONSTITUENTS OF CONCERN AND CALCULATED CONCENTRATION LIMITS
FORMER NAS MOFFETT FIELD**

| COC | MDL ^a (µg/L) | SQL ^a (µg/L) | Calculated Concentration Limit (µg/L) |
|--------------------------|----------------------------|----------------------------|------------------------------------------|
| 2-Butanone | 5 | 10 | 2,436.00 |
| 2-Chlorotoluene | 0.2 | 0.5 | 12,900.00 |
| 2-Hexanone | 1 | 10 | 11.88 |
| 4-Chlorotoluene | 0.2 | 0.5 | 12,900.00 |
| 4-Methyl-2-pentanone | 1 | 10 | 236.30 |
| Acetone | 2 | 10 | 156.00 |
| Benzene | 0.2 | 0.5 | 1,001.00 |
| Bromobenzene | 0.2 | 0.5 | 1,126.17 |
| Bromochloromethane | 0.2 | 0.5 | 5.88 |
| Bromodichloromethane | 0.2 | 0.5 | 6.47 |
| Bromoform | 0.2 | 1 | 6.78 |
| Bromomethane | 0.2 | 1 | 7,296.00 |
| Carbon disulfide | 0.2 | 0.5 | 0.21 |
| Carbon tetrachloride | 0.2 | 0.5 | 23,850.00 |
| Chlorobenzene | 0.2 | 0.5 | 1,117.14 |
| Chloroethane | 0.2 | 1 | 3.39 |
| Chloroform | 0.2 | 0.5 | 3.25 |
| Chloromethane | 0.2 | 1 | 4.98 |
| cis-1,2-Dichloroethene | 0.2 | 0.5 | 65.49 |
| cis-1,3-Dichloropropene | 0.2 | 0.5 | 0.20 |
| Dibromochloromethane | 0.2 | 0.5 | 17,280.00 |
| Dibromomethane | 0.2 | 0.5 | 6,848.00 |
| Dichlorodifluoromethane | 0.5 | 1 | 11,520.00 |
| Ethylbenzene | 0.2 | 0.5 | 2,160.32 |
| Hexachlorobutadiene | 0.2 | 0.5 | 320.00 |
| Isopropylbenzene | 0.2 | 0.5 | 4,300.00 |
| m,p-Xylene | 0.3 | 1 | 4.11 |
| Methylene chloride | 1 | 2 | 130,432.00 |
| Naphthalene | 0.3 | 0.5 | 272.60 |
| n-Butylbenzene | 0.2 | 0.5 | 4,300.00 |
| n-Propylbenzene | 0.2 | 0.5 | 4,300.00 |
| o-Xylene | 0.2 | 0.5 | 3.09 |
| p-Isopropyltoluene | 0.2 | 0.5 | 2,150.86 |
| sec-Butylbenzene | 0.2 | 0.5 | 4,300.00 |
| Styrene | 0.2 | 0.5 | 4,300.00 |
| tert-Butylbenzene | 0.2 | 0.5 | 4,300.00 |
| Tetrachloroethene | 0.2 | 0.5 | 23.13 |
| Toluene | 0.2 | 0.5 | 500,000.00 |
| trans-1,2-Dichloroethene | 0.2 | 0.5 | 70.21 |

TABLE 3-1

**CONSTITUENTS OF CONCERN AND CALCULATED CONCENTRATION LIMITS
FORMER NAS MOFFETT FIELD**

| COC | MDL ^a (µg/L) | SQL ^a (µg/L) | Calculated Concentration Limit (µg/L) |
|------------------------------|----------------------------|----------------------------|------------------------------------------|
| trans-1,3-Dichloropropene | 0.2 | 0.5 | 0.20 |
| Trichloroethene | 0.2 | 0.5 | 9.49 |
| Trichlorofluoromethane | 0.2 | 1 | 15,360.00 |
| Vinyl chloride | 0.2 | 1 | 61.95 |
| PCBs | | | |
| Aroclor-1016 | 0.25 | 1 | 1.40 |
| Aroclor-1221 | 0.25 | 1 | 1.40 |
| Aroclor-1232 | 0.25 | 1 | 1.40 |
| Aroclor-1242 | 0.25 | 1 | 1.40 |
| Aroclor-1248 | 0.25 | 1 | 1.40 |
| Aroclor-1254 | 0.25 | 1 | 1.40 |
| Aroclor-1260 | 0.25 | 1 | 1.40 |
| Pesticides | | | |
| 4,4'-DDD | 0.03 | 0.1 | 36.00 |
| 4,4'-DDE | 0.03 | 0.1 | 140.00 |
| 4,4'-DDT | 0.02 | 0.1 | 0.10 |
| Aldrin | 0.01 | 0.05 | 13.00 |
| alpha-BHC | 0.01 | 0.05 | 340.00 |
| alpha-Chlordane | 0.01 | 0.05 | 0.40 |
| beta-BHC | 0.01 | 0.05 | 340.00 |
| delta-BHC | 0.01 | 0.05 | 340.00 |
| Dieldrin | 0.01 | 0.2 | 0.19 |
| Endosulfan I | 0.03 | 0.05 | 0.87 |
| Endosulfan II | 0.02 | 0.1 | 0.87 |
| Endosulfan sulfate | 0.02 | 0.1 | 0.87 |
| Endrin | 0.02 | 0.1 | 0.23 |
| Endrin aldehyde | 0.02 | 0.1 | 0.23 |
| Endrin ketone | 0.02 | 0.1 | 0.23 |
| gamma-BHC (Lindane) | 0.01 | 0.05 | 1.60 |
| gamma-Chlordane | 0.01 | 0.05 | 0.40 |
| Heptachlor | 0.01 | 0.05 | 0.36 |
| Heptachlor epoxide | 0.01 | 0.05 | 0.36 |
| Methoxychlor | 0.01 | 0.05 | 3.00 |
| Toxaphene | 1.25 | 3 | 1.25 |
| SVOCs | | | |
| 1,1'-Biphenyl | 5 | 10 | 37.00 |
| 2,2'-Oxybis(1-chloropropane) | 5 | 10 | 5.00 |
| 2,4,5-Trichlorophenol | 5 | 10 | 1,100.00 |
| 2,4,6-Trichlorophenol | 5 | 10 | 411.28 |

TABLE 3-1

**CONSTITUENTS OF CONCERN AND CALCULATED CONCENTRATION LIMITS
FORMER NAS MOFFETT FIELD**

| COC | MDL ^a (µg/L) | SQL ^a (µg/L) | Calculated Concentration Limit (µg/L) |
|----------------------------|----------------------------|----------------------------|------------------------------------------|
| 2,4-Dichlorophenol | 5 | 10 | 1,898.00 |
| 2,4-Dimethylphenol | 5 | 10 | 3,650.00 |
| 2,4-Dinitrophenol | 10 | 20 | 504.40 |
| 2,4-Dinitrotoluene | 10 | 20 | 965.70 |
| 2,6-Dinitrotoluene | 6 | 20 | 747.40 |
| 2-Chloronaphthalene | 5 | 10 | 75.00 |
| 2-Chlorophenol | 5 | 10 | 13.91 |
| 2-Methylnaphthalene | 5 | 10 | 3,000.00 |
| 2-Methylphenol | 5 | 10 | 11.31 |
| 2-Nitroaniline | 6 | 20 | 149.64 |
| 2-Nitrophenol | 5 | 10 | 727.50 |
| 3,3'-Dichlorobenzidine | 5 | 10 | 3.30E+07 |
| 3-Nitroaniline | 5 | 10 | 149.64 |
| 4,6-Dinitro-2-methylphenol | 10 | 20 | 489.85 |
| 4-Bromophenyl-phenylether | 7 | 20 | 7.00 |
| 4-Chloro-3-methylphenol | 5 | 10 | 36.87 |
| 4-Chloroaniline | 5 | 10 | 278.64 |
| 4-Chlorophenyl-phenylether | 5 | 10 | 5.00 |
| 4-Methylphenol | 5 | 10 | 130.00 |
| 4-Nitroaniline | 5 | 10 | 149.64 |
| 4-Nitrophenol | 5 | 10 | 950.60 |
| Acenaphthene | 5 | 10 | 71,000.00 |
| Acenaphthylene | 5 | 10 | 300.00 |
| Acetophenone | 2.5 | 10 | 420.00 |
| Anthracene | 5 | 10 | 3,000.00 |
| Atrazine | 10 | 20 | 18,963.00 |
| Benzaldehyde | 5 | 10 | 5.00 |
| Benzo[a]anthracene | 5 | 10 | 3,000.00 |
| Benzo[a]pyrene | 5 | 10 | 3,000.00 |
| Benzo[b]fluoranthene | 5 | 10 | 3,000.00 |
| Benzo[g,h,i]perylene | 5 | 10 | 3,000.00 |
| Benzo[k]fluoranthene | 5 | 10 | 3,000.00 |
| bis(2-Chloroethoxy)methane | 5 | 10 | 6,720.00 |
| bis(2-Chloroethyl)ether | 5 | 10 | 3,808.00 |
| bis(2-Ethylhexyl)phthalate | 10 | 20 | 30.00 |
| Butylbenzylphthalate | 5 | 10 | 340.00 |
| Caprolactam | 5 | 10 | 5.00 |
| Carbazole | 5 | 10 | 37.00 |
| Chrysene | 5 | 10 | 3,000.00 |

TABLE 3-1

**CONSTITUENTS OF CONCERN AND CALCULATED CONCENTRATION LIMITS
FORMER NAS MOFFETT FIELD**

| COC | MDL ^a (µg/L) | SQL ^a (µg/L) | Calculated Concentration Limit (µg/L) |
|----------------------------|----------------------------|----------------------------|------------------------------------------|
| di-n-Butylphthalate | 5 | 10 | 340.00 |
| di-n-Octylphthalate | 5 | 10 | 340.00 |
| Dibenz[a,h]anthracene | 5 | 10 | 3,000.00 |
| Dibenzofuran | 5 | 10 | 37.00 |
| Diethylphthalate | 6 | 20 | 340.00 |
| Dimethylphthalate | 6 | 20 | 15.06 |
| Fluoranthene | 5 | 10 | 1,600.00 |
| Fluorene | 5 | 10 | 3,000.00 |
| Hexachlorobenzene | 6 | 20 | 12,900.00 |
| Hexachlorocyclopentadiene | 5 | 10 | 70.00 |
| Hexachloroethane | 5 | 10 | 9,400.00 |
| Indeno(1,2,3-cd)pyrene | 5 | 10 | 3,000.00 |
| Isophorone | 5 | 10 | 3,044.40 |
| n-Nitroso-di-n-propylamine | 5 | 10 | 698.40 |
| n-Nitrosodiphenylamine | 5 | 10 | 3.30E+07 |
| Nitrobenzene | 5 | 10 | 1,229.12 |
| Pentachlorophenol | 10 | 20 | 94.80 |
| Phenanthrene | 6 | 20 | 460.00 |
| Phenol | 5 | 20 | 904.80 |
| Pyrene | 5 | 20 | 3,000.00 |

Notes:

This table is abstracted from the *Technical Memorandum, Site 1 Groundwater Evaluation Process* (TtFW, 2004)

^a The MDL and SQL are based on the specific analytical methods listed in Section 4.1 of the Tech Memo (TtFW, 2004). MDLs are likely to change slightly for each analysis, as the MDL depends on both sample and instrument conditions at the time of analysis. For those cases where the CCLs have been made equal to the MDL, the CCL may change slightly for each analysis event.

Shaded cells indicate that CCL was raised to meet available MDL.

Abbreviations and Acronyms:

µg/L – micrograms per liter
 BHC – benzenhexachloride
 CCL - calculated concentration limit
 COC – constituent of concern
 DDD – dichlorodiphenyldichloroethane
 DDE – dichlorodiphenyltrichloroethene
 DDT – dichlorodiphenyltrichloroethane
 MDL – method detection limit
 NAS – Naval Air Station
 PCB – polychlorinated biphenyl
 SQL – sample quantitation limit
 SVOC – semivolatile organic compound
 TtFW – Tetra Tech FW, Inc.
 VOC – volatile organic compound

TABLE 3-2

**MARCH 2004 DETECTED ANALYTES IN GROUNDWATER
FORMER NAS MOFFETT FIELD**

| COC | 71-S1-017 W1-1 3/29/04 | 71-S1-018 W1-15 3/29/04 | 71-S1-019 W1-19 3/30/04 | 71-S1-020 W1-19 (DUP) 3/30/04 | 71-S1-022 W1-14 3/30/04 | 71-S1-023 W1-12R 3/29/04 | 71-S1-024 W1-22 ^a 3/29/04 | 71-S1-025 W1-5 3/30/04 | 71-S1-026 W1-8 3/30/04 | 71-S1-027 W1-8 (DUP) 3/30/04 | 71-S1-028 W1-24 3/31/04 | 71-S1-029 W1-16 3/31/04 |
|--------------------------------------------------|------------------------------|-------------------------------|-------------------------------|-------------------------------------|-------------------------------|--------------------------------|--------------------------------------------|------------------------------|------------------------------|------------------------------------|-------------------------------|-------------------------------|
| Dissolved Metals (µg/L) EPA Method 6010B | | | | | | | | | | | | |
| Aluminum | 4,000 U | 4,000 U | 4,000 U | 4,000 U | 4,000 U | 4,000 U | 4,000 U | 4,000 U | 4,000 U ^b | 4,000 U ^b | 4,000 U ^b | 3,800 J |
| Barium | 66.6 J | 157 J | 81.8 J | 83.4 J | 145 J | 75.8 J | 313 | 485 | 121 J | 164 J | 246 | 384 |
| Chromium | 400 U | 400 U | 400 U | 400 U | 400 U | 400 U | 400 U | 400 U | 400 U | 107 J | 400 U | 400 U |
| Zinc | 400 U | 400 U | 400 U | 400 U | 400 U | 400 U | 400 U | 400 U | 400 U | 102 J | 400 U | 400 U |
| VOCs (µg/L) EPA Method 8260B | | | | | | | | | | | | |
| Acetone | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 6 J | 10 UJ | 10 UJ | 10 UJ | 10 U | 10 U |
| Carbon disulfide | 0.5 UJ | 0.21 J | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U |
| Pesticides (µg/L) EPA Method 8081A | | | | | | | | | | | | |
| 4,4'-DDD | 0.094 UJ | 0.094 UJ | 0.094 UJ | 0.094 U | 0.094 UJ | 0.1 UJ | 0.039 J | 0.094 UJ | 0.094 UJ | 0.094 UJ | 0.094 UJ | 0.094 UJ |
| alpha-BHC | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.05 U | 0.033 J | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.018 J |
| beta-BHC | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.05 U | 0.047 U | 0.029 J | 0.047 U | 0.047 U | 0.047 U | 0.047 J |
| delta-BHC | 0.047 UJ | 0.047 UJ | 0.047 UJ | 0.047 U | 0.047 UJ | 0.05 UJ | 0.047 UJ | 0.047 UJ | 0.047 UJ | 0.047 UJ | 0.047 UJ | 0.03 J |
| Dieldrin | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.1 U | 0.05 J | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U |
| Heptachlor | 0.047 UJ | 0.047 UJ | 0.013 J | 0.047 U | 0.047 UJ | 0.05 UJ | 0.047 UJ | 0.047 UJ | 0.047 UJ | 0.047 UJ | 0.047 UJ | 0.047 UJ |
| General Chemistry (mg/L) | | | | | | | | | | | | |
| Nitrate as Nitrogen | 0.14 | 0.1 U | 0.1 U | 0.1 U | 0.118 | 1.11 | 0.527 | 1.68 | 2.95 | 2.99 | 0.215 | 0.1 U |
| Total organic carbon | 6.07 | 12.90 | 9.41 | 9.00 | 11.80 | 6.48 | 95.30 | 11.30 | 10.00 | 10.00 | 22.00 | 18.00 |

Notes:

^a – Well W1-22 is a collection trench well not representative of groundwater at Site 1.

^b – Aluminum was detected but was not confirmed in the Trace-ICP run and lab contamination was suspected during dilution process. Therefore, the result was reported from the Trace-ICP re-run on 04/26/04.

Shading indicates concentration above the calculated concentration limit.

Metals analysis was conducted using EPA Test Method 6010B. Per the *Final Technical Memorandum Site 1 Groundwater Evaluation Process* (TtFW, 2004), future dissolved metals sampling was performed using EPA Test Method 200.8.

Abbreviations and Acronyms:

µg/L – micrograms per liter

mg/L – milligrams per liter

BHC – benzenehexachloride

COC – constituent of concern

DDD – dichlorodiphenyldichloroethane

DUP – duplicate sample

EPA – U.S. Environmental Protection Agency

J – estimated value

NAS – Naval Air Station

TtFW – Tetra Tech FW, Inc.

U – analyte not detected above method reporting limit

UJ – analyte not detected above the estimated reporting limit

VOC – volatile organic compound

TABLE 3-3

**MAY 2004 DETECTED ANALYTES IN GROUNDWATER
FORMER NAS MOFFETT FIELD**

| COC | 86-S1-001 W1-1 5/24/04 | 86-S1-002 W1-1 (DUP) 5/24/04 | 86-S1-003 W1-15 5/24/04 | 86-S1-004 W1-19 5/25/04 | 86-S1-006 W1-14 5/25/04 | 86-S1-007 W1-14 (DUP) 5/25/04 | 86-S1-008 W1-12R 5/25/04 | 86-S1-009 W1-22 ^a 5/26/04 | 86-S1-010 W1-5 5/26/04 | 86-S1-011 W1-8 5/26/04 | 86-S1-012 W1-24 5/26/04 | 86-S1-013 W1-16 5/26/04 |
|--------------------------------|--------------------------------------------------|------------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------------|--------------------------------|--------------------------------------------|------------------------------|------------------------------|-------------------------------|-------------------------------|
| Dissolved Metals (mg/L) | EPA Method 200.8 (unless otherwise noted) | | | | | | | | | | | |
| Antimony | 1.02 U | 0.9 U | 0.98 U | 2.2 | 0.9U | 0.9U | 0.93 U | 0.65 U | 2.09 | 1.86 U | 2.14 | 2.25 J |
| Arsenic | 0.63 J | 0.6 J | 5.17 | 3.04 J | 5.35 J | 4.92J | 2.24 J | 2.56 J | 3.62 J | 1.57 J | 6.78 J | 6.43 J |
| Barium | 71.5 | 72J | 181 | 86.6 | 152 | 155 J | 78.2 | 357 | 524 | 130 | 214 | 229 J |
| Beryllium | 0.007 U | 0.006 U | 0.016 J | 0.009 U | 0.01 U | 0.011U | 0.006 U | 0.023 J | 0.007 U | 0.006 U | 0.014 J | 0.013 J |
| Cadmium | 0.171 | 0.185 J | 0.006 U | 0.414 | 0.011 J | 0.009U | 0.066 | 0.006 U | 0.012 J | 0.134 | 0.006 U | 0.054 J |
| Chromium | 0.72 | 0.64J | 1.76 | 0.37 J | 0.56 | 0.54J | 0.46 | 3.84 | 0.8 | 0.43 | 1.23 | 0.49 J |
| Cobalt | 3.49 J | 3.41J | 2.65 | 8.24 J | 7.16 J | 7.69 J | 5.67 J | 0.956 J | 3.09 J | 0.882 J | 4.65 J | 5.61 J |
| Copper | 0.51 | 0.5 J | 0.22 | 1.56 | 0.14 J | 0.11 J | 0.17 J | 0.38 | 0.08 J | 0.26 | 0.19 J | 0.13 J |
| Lead | 0.023 J | 0.02J | 0.018 U | 0.076 | 0.02 J | 0.022J | 0.018 U | 0.018 U | 0.018 U | 0.018 U | 0.024 J | 0.247 J |
| Nickel | 19.4 | 19.6 J | 6.06 | 13 | 9.47 | 9.72J | 41 | 75.9 | 6.86 | 5.66 | 14.8 | 14.4 J |
| Silver | 0.054 | 0.033J | 0.011 J | 0.02 J | 0.016 J | 0.033 J | 0.038 J | 0.01 U | 0.01 U | 0.034 J | 0.016 J | 0.239 J |
| Thallium | 0.066 | 0.065J | 0.001 U | 0.067 | 0.006 U | 0.006U | 0.022 J | 0.002 U | 0.016 U | 0.025 J | 0.008 U | 0.008 U |
| Vanadium (EPA Method 6010B) | 11.8 | 6 U | 6 U | 6 U | 9 J | 6 U | 6 U | 6 U | 10.2 | 6 U | 6.8 J | 6 U |
| Zinc | 7020 | 8810^b | 2.38 J | 3.4 J | 1.22 J | 1.19J | 41.3 J | 26.3 J | 0.87 J | 3.74 J | 1.17 J | 0.46 J |
| VOCs (µg/L) | EPA Method 8260B | | | | | | | | | | | |
| Acetone | 10 U | 10 U | 10 UJ | 10 UJ | 10 UJ | 10 UJ | 10 U | 2.9 J | 10 U | 10 U | 2.8 J | 10 U |
| Carbon disulfide | 0.5 U | 0.5 U | 0.24 J | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 UJ | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| Toluene | 0.54 | 0.71 | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 UJ | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| Pesticides (µg/L) | EPA Method 8081A | | | | | | | | | | | |
| alpha-BHC | 0.047 U | 0.047 U | 0.061 | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U |
| beta-BHC | 0.047 U | 0.047 U | 0.38 | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U |
| gamma-Chlordane | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.053 | 0.047 U | 0.047 U | 0.047 U | 0.047 U |
| SVOCs (mg/L) | EPA Method 8270C | | | | | | | | | | | |
| bis(2-Ethylhexyl)phthalate | 19 U | 42 | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U |
| Caprolactam | 9.4 U | 6.2 J | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |

Notes:^a – Well W1-22 is a collection trench well not representative of groundwater at Site 1.^b – Duplicate sample was re-run at the request of the project chemist. All re-run values were less than the calculated concentration limit, but are not reported because not all of the appropriate laboratory quality control documentation was completed.

Shading indicates concentration above the calculated concentration limit.

Abbreviations and Acronyms:

µg/L – micrograms per liter

mg/L – milligrams per liter

BHC – benzenehexachloride

COC – constituent of concern

DUP – duplicate sample

EPA – U.S. Environmental Protection Agency

J – estimated value

NAS – Naval Air Station

SVOC – semivolatile organic compound

U – analyte not detected above method reporting limit

UJ – analyte not detected above the estimated reporting limit

VOC – volatile organic compound

TABLE 3-4

**NOVEMBER 2004 DETECTED ANALYTES IN GROUNDWATER
FORMER NAS MOFFETT FIELD**

| COC | 86-S1-056 W1-1R 11/8/04 | 86-S1-057 W1-15 11/8/04 | 86-S1-058 W1-19 11/8/04 | 86-S1-060 W1-14 11/8/04 | 86-S1-061 W1-12R 11/9/04 | 86-S1-062 W1-22 ^a 11/9/04 | 86-S1-063 W1-5 11/9/04 | 86-S1-064 W1-5 (DUP) 11/9/04 | 86-S1-065 W1-8 11/10/04 | 86-S1-066 W1-8 (DUP) 11/10/04 | 86-S1-067 W1-24 11/10/04 | 86-S1-068 W1-16 11/10/04 |
|---------------------------------------|--------------------------------|-------------------------------|-------------------------------|-------------------------------|--------------------------------|--------------------------------------------|------------------------------|------------------------------------|-------------------------------|-------------------------------------|--------------------------------|--------------------------------|
| <i>Dissolved Metals (mg/L)</i> | <i>EPA Method 200.8</i> | | | | | | | | | | | |
| Aluminum | 50 U | 50 U | 50 U | 50 U | 50 U | 50.2 | 50 U | 50 U | 50 U | 50 U | 50 U | 50 U |
| Antimony | 4.22 | 4.89 | 4.82 J | 4.49 | 4.94 | 1.94 U | 2.2 U | 2.81 UJ | 3.4 U | 3.65 UJ | 2.72 U | 1.64 U |
| Arsenic | 5.75 J | 7.96 J | 2.82 J | 7.53 J | 3.31 J | 2.2 J | 1.74 J | 1.79 J | 3.81 J | 3.88 J | 11.5 J | 4.91 J |
| Barium | 111 | 126 | 81.3 J | 147 | 60.5 | 1160 | 481 | 477 J | 149 | 141 J | 250 | 417 |
| Beryllium | 0.005 J | 0.015 J | 0.003 J | 0.007 J | 0.005 J | 0.022 J | 0.005 J | 0.004 J | 0.004 J | 0.008 J | 0.015 J | 0.009 J |
| Cadmium | 0.003 J | 0.006 U | 0.421 J | 0.014 J | 0.041 | 0.003 U | 0.003 U | 0.003 U | 0.003 U | 0.003 U | 0.005 J | 0.006 J |
| Chromium | 0.25 J | 0.51 J | 0.17 J | 0.44 J | 0.26 J | 6.19 J | 0.64 J | 0.62 J | 0.73 J | 0.63 J | 1.65 J | 0.63 J |
| Cobalt | 8.68 J | 4.36 J | 11 J | 6.09 J | 3.28 J | 0.101 J | 0.727 J | 1.15 J | 0.775 J | 1.28 J | 1.98 J | 5.93 J |
| Copper | 0.3 J | 0.13 J | 0.38 J | 0.23 J | 0.24 J | 0.37 J | 0.11 J | 0.15 J | 0.14 J | 0.16 J | 0.17 J | 0.17 J |
| Lead | 0.017 J | 0.018 U | 0.039 J | 0.145 | 0.012 J | 0.213 | 0.009 J | 0.009 U | 0.143 | 0.009 U | 0.021 | 0.009 U |
| Nickel | 19.2 | 7.6 | 12.7 J | 7.6 | 8.35 | 21.3 | 4.04 | 4.08 J | 4.24 | 4.1 J | 10.2 | 11.7 |
| Silver | 0.092 | 0.01 U | 0.011 J | 0.012 J | 0.005 U | 0.005 U | 0.005 U | 0.005 U | 0.005 U | 0.005 U | 0.005 U | 0.005 U |
| Thallium | 0.037 | 0.001 U | 0.062 J | 0.001 U | 0.05 | 0.001 J | 0.007 J | 0.001 J | 0.001 U | 0.001 U | 0.002 J | 0.001 U |
| Zinc | 4.17 J | 22.7 J | 37.4 J | 29.5 J | 68.6 J | 1320 J | 0.79 J | 0.5 J | 4.92 J | 3.2 J | 2.22 J | 0.42 J |
| <i>VOCs (µg/L)</i> | <i>EPA Method 8260B</i> | | | | | | | | | | | |
| Carbon disulfide | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 2.5 U | 0.5 UJ | 0.23 J | 0.5 UJ | 0.23 J | 0.5 UJ | 0.5 UJ |
| <i>Pesticides (µg/L)</i> | <i>EPA Method 8081A</i> | | | | | | | | | | | |
| alpha-BHC | 0.047 UJ | 0.047 UJ | 0.047 UJ | 0.047 U | 0.047 U | 0.011 J | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U |
| beta-BHC | 0.047 UJ | 0.047 UJ | 0.047 UJ | 0.047 U | 0.047 U | 0.14 | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U |
| delta-BHC | 0.047 UJ | 0.047 UJ | 0.047 UJ | 0.047 U | 0.047 U | 0.029 J | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U |
| Endrin | 0.094 UJ | 0.094 UJ | 0.094 UJ | 0.094 U | 0.094 U | 0.032 J | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U |
| Heptachlor epoxide | 0.047 UJ | 0.047 UJ | 0.047 UJ | 0.047 U | 0.047 U | 0.034 J | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U |

Notes:

Shading indicates concentration above the calculated concentration limit.

^a – Well W1-22 is a collection trench well and not representative of groundwater at Site 1.**Abbreviations and Acronyms:**

µg/L – micrograms per liter

mg/L – milligrams per liter

BHC – benzenehexachloride

COC – constituent of concern

DUP – duplicate sample

EPA – Environmental Protection Agency

J – estimated value

NAS – Naval Air Station

U – analyte not detected above method reporting limit

UJ – analyte not detected above the estimated reporting limit

VOC – volatile organic compound

Also during the March 2004 sampling event, only one dissolved metal (barium), one VOC (acetone), and three pesticides (4,4-DDD, alpha-BHC, and dieldrin) were detected in samples from trench well W1-22 at concentrations greater than their respective laboratory reporting levels (see Table 3-2).

3.2.2 May 2004 Sampling Event

During the May 2004 sampling event, every dissolved metal (analyzed by EPA Method 200.8), three VOCs (acetone, carbon disulfide, and toluene), three pesticides (alpha-BHC, beta-BHC, and gamma-chlordane), and two SVOCs (bis[2-ethylhexyl]phthalate [BeP] and caprolactam) were detected at concentrations greater than their respective laboratory detection levels (see Table 3-3). The following details how barium, silver, zinc, carbon disulfide, BeP and caprolactam exceeded their respective CCLs:

- The barium CCL was exceeded in samples from every monitoring well. Barium occurred in samples from a background well or was below historical background values. Thus, it was removed from further consideration.
- The silver CCL was exceeded at an estimated value only in a sample from downgradient monitoring well W1-16. The estimated value for silver was less than the historical background and thus was removed from further consideration.
- The zinc CCL was exceeded only in the duplicate sample for monitoring well W1-1. However, the duplicate sample for monitoring well W1-1 was re-run at the request of the TtFW Project Chemist. All re-run values were less than their respective CCLs, which was interpreted to suggest that there were difficulties with the initial analysis of groundwater from monitoring well W1-1. Thus, zinc was considered to not have exceeded its CCL.
- The carbon disulfide CCL was exceeded at an estimated value only in a sample from downgradient monitoring well W1-15. However, the reported value was less than historical background levels and therefore was removed from further consideration.
- The BeP CCL was exceeded only in the duplicate sample from downgradient monitoring well W1-1. BeP is often a laboratory contaminant. However, since this was the first time SVOCs were sampled at Site 1, there was no historical database for comparison. Therefore, this compound was placed on the observation list for confirmation of a CCL exceedance over the next two rounds in the supplemental groundwater sampling for an SVOC baseline. BeP was not detected in monitoring well W1-1 in the July and August supplemental groundwater sampling events. Therefore, the May CCL exceedance for this compound is treated as a false positive, and this compound was removed from further consideration.
- The caprolactam CCL was exceeded only in the duplicate sample from monitoring well W1-1. Because this was the first time SVOCs were sampled at Site 1, there was no historical database for comparison. This compound was placed on the observation list for confirmation of a CCL exceedance over the next two rounds in the supplemental groundwater sampling for an SVOC baseline. Caprolactam was not

detected in well W1-1 in the July and August supplemental groundwater sampling events. Therefore, the May CCL exceedance for this compound is treated as a false positive, and this compound was removed from further consideration.

Also during the May 2004 sampling event, eight dissolved metals (arsenic, barium, beryllium, chromium, cobalt, copper, nickel, and zinc), one VOC (acetone), and one pesticide (gamma-chlordane) were detected in samples from trench well W1-22 at concentrations greater than their respective laboratory detection levels (see Table 3-3).

3.2.3 November 2004 Sampling Event

During the November 2004 sampling event, every dissolved metal (analyzed by EPA Method 200.8), one VOC (carbon disulfide), and five pesticides (alpha-BHC, beta-BHC, delta-BHC, endrin, and heptachlor epoxide) were detected at concentrations greater than their respective laboratory detection levels (see Table 3-2, page 3 of 3). The following details how barium and carbon disulfide exceeded their respective CCLs:

- The barium CCL was exceeded in samples from every monitoring well. Barium either occurred in samples from a background well or was below historical background values. Thus, it was removed from further consideration.
- The carbon disulfide CCL was exceeded at estimated values in only the duplicate samples from background monitoring wells W1-5 and W1-8. Both exceedances occurred in samples from background wells and therefore were removed from further consideration.

Also during the November 2004 sampling event, 11 dissolved metals (aluminum, arsenic, barium, beryllium, chromium, cobalt, copper, lead, nickel, thallium, and zinc), and five pesticides (alpha-BHC, beta-BHC, delta-BHC, endrin, and heptachlor epoxide) were detected in samples from trench well W1-22 at concentrations greater than their respective laboratory detection levels (see Table 3-4).

3.2.4 Supplemental Sampling Events

There were no detections for dissolved mercury or for any SVOC greater than the laboratory reporting level for the supplemental groundwater samples collected in July, August, September, and December 2004 (see Appendix B).

4.0 METHANE MONITORING

As part of landfill monitoring activities, methane monitoring was conducted for 19 passive gas vent (GV) wells within the Site 1 Landfill and 4 landfill gas monitoring wells on the perimeter of the landfill. Methane monitoring is also performed at the perimeter of the site at 150-foot intervals. The monitoring program was conducted in accordance with Section 6 of the *Site 1 Landfill Final Closure Plan and Post-Closure Maintenance Plan* (Tetra Tech EM, Inc., 1998), Section 5.2 of the *Post-Closure Monitoring (Site 1) and Groundwater Monitoring (Site 2) Sampling and Analysis Plan* (International Technology Corporation, 2000), and the *Final Sampling and Analysis Plan Addendum for Post-Closure Monitoring (Site 1) and Groundwater Monitoring (Site 2)* (Foster Wheeler Environmental Corporation, 2001a). The monitoring program was conducted in March, May, and November 2004, using a Landtec GA 90 portable methane monitor. Methane monitoring locations are shown in Figure 4-1.

4.1 LANDFILL GAS MONITORING WELL AND GAS VENT RESULTS

The results of landfill gas monitoring well and GV monitoring are shown in Table 4-1. In general, the percentages of methane gas concentrations within the landfill were slightly lower in November 2004 than in March or May 2004 and are similar to historical concentrations. Methane concentrations were highest in March 2004, near the northern portion of the landfill (GV-8 at 57.9 percent), followed by a detected concentration of 52.1 percent in GV-11, which is near the center of the landfill. None of the perimeter wells (LGMW1-1 through LGMW1-4) showed concentrations of methane above the concentrations limit of 5 percent (all readings were zero percent), as specified in 27 Code of Federal Regulations, Section 20921(a)(2) and as identified in the *Moffett Federal Airfield Final Operable Unit 1 Record of Decision* (Navy, 1997). Appendix F contains methane monitoring data graphs for the 19 GV wells and the 4 landfill gas monitoring wells.

4.2 PERIMETER GAS MONITORING RESULTS

Perimeter monitoring points (P-1 through P-21) are located along the perimeter fence line at approximate 150-foot intervals. Methane was not detected at any of the perimeter monitoring locations in March, May, or November 2004.

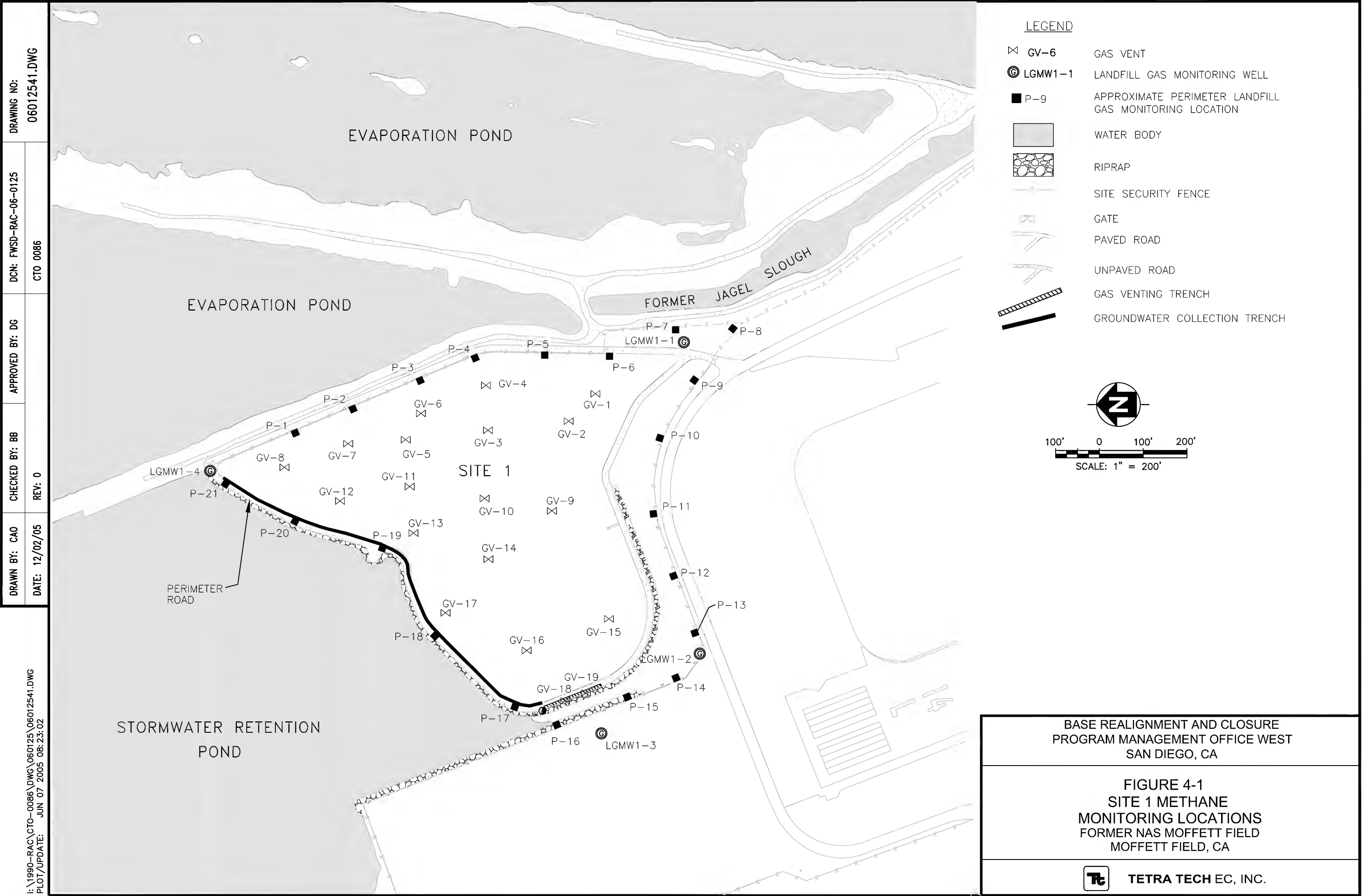


TABLE 4-1

**2004 LANDFILL GAS MONITORING WELL AND
GAS VENT METHANE MONITORING RESULTS
FORMER NAS MOFFETT FIELD**

| Monitoring Location | Percent Methane ¹ | | |
|---------------------|------------------------------|--------------|-------------------|
| | March 23, 2004 | May 27, 2004 | November 11, 2004 |
| GV-1 | 0.0 | 0.0 | 1.4 |
| GV-2 | 0.0 | 0.0 | 0.0 |
| GV-3 | 0.0 | 0.0 | 0.0 |
| GV-4 | 0.0 | 0.0 | 0.0 |
| GV-5 | 42.0 | 10.0 | 4.4 |
| GV-6 | 0.0 | 0.0 | 0.0 |
| GV-7 | 37.0 | 36.3 | 24.1 |
| GV-8 | 57.9 | 29.0 | 16.7 |
| GV-9 | 0.0 | 0.0 | 0.0 |
| GV-10 | 1.1 | 25.6 | 24.0 |
| GV-11 | 51.1 | 52.1 | 31.2 |
| GV-12 | 6.2 | 2.2 | 0.0 |
| GV-13 | 0.5 | 0.0 | 0.0 |
| GV-14 | 0.0 | 0.0 | 0.0 |
| GV-15 | 0.0 | 0.0 | 0.0 |
| GV-16 | 0.0 | 0.0 | 0.0 |
| GV-17 | 0.0 | 0.0 | 0.0 |
| GV-18 | 0.0 | 0.0 | 0.0 |
| GV-19 | 0.0 | 0.0 | 0.0 |
| LGMW1-1 | 0.0 | 0.0 | 0.0 |
| LGMW1-2 | 0.0 | 0.0 | 0.0 |
| LGMW1-3 | 0.0 | 0.0 | 0.0 |
| LGMW1-4 | 0.0 | 0.0 | 0.0 |

Notes:

¹ - Methane concentrations were measured using a Landtec GA 90 portable methane meter. Accuracy is $\pm 0.3\%$ by volume at 5% concentration, and $\pm 1.9\%$ by volume at 60% concentration.

Abbreviations and Acronyms:

GV – gas vent

LGMW – landfill gas monitoring well

NAS - Naval Air Station

5.0 CONCLUSIONS

Depth to groundwater measurements were collected from Site 1 Landfill monitoring wells, piezometers, and collection trench wells on:

- March 22, 2004
- May 24, 2004
- November 8, 2004
- July 6, 2004
- August 18, 2004
- September 27, 2004
- December 13, 2004

Groundwater elevations for all Site 1 Landfill measurements were below sea level for 2004. In general, the groundwater elevations are similar to previous years. The groundwater flows from north to south at the Site 1 Landfill. The gradient from north to south was approximately:

- 0.0007 feet per foot (ft/ft) in March 2004
- 0.0008 ft/ft in May 2004
- 0.0008 ft/ft in July 2004
- 0.0007 ft/ft in August 2004
- 0.0008 ft/ft in September 2004
- 0.0005 ft/ft in November 2004
- 0.0008 ft/ft in December 2004

The following water level trends were observed in 2004:

- Most monitoring wells had seasonal high-water levels in March.
- Most monitoring wells had seasonal low-water levels in August.

The seasonal water level fluctuation was on the order of 0.5 feet.

The water levels in monitoring well pair W1-19/PZ1-18 show continuous upward potential for all but the August 18, 2004, measurement since 1999. However, the water level in monitoring well W1-19 on August 18, 2004, is not consistent with the long-term trend. The water levels in monitoring well pair W1-20/PZ1-21 show a slight upward potential.

Regularly scheduled groundwater sampling was conducted at Site 1 in March, May, and November 2004. In addition, supplemental groundwater sampling was completed in July, August, September, and December 2004. The supplemental groundwater sampling was conducted to develop the database required for the evaluation of dissolved mercury and semivolatile organic compounds (SVOCs). Groundwater samples were collected from nine monitoring wells, as well as from collection trench well W1-22. Collection trench well W1-23 could not be sampled due to insufficient water.

Analytical testing during 2004 changed after the approval of the *Final Technical Memorandum, Site 1 Groundwater Evaluation Process* (Tech Memo) (Tetra Tech FW, Inc. [TtFW], 2004). After the March sampling event, the following changes took place:

- Dissolved metals analyses, which previously had been performed using United States Environmental Protection Agency (EPA) Method 6010B, changed to EPA Method 200.8 (to lower the method detection level), and dissolved mercury using EPA Method 7470A was added.
- SVOCs analyses by EPA Method 8270C were added.

Twelve samples, including two duplicate samples, were collected from nine groundwater monitoring wells and one collection trench well at the Site 1 Landfill for each sampling event. The analytical results from the collection trench well are not considered representative of chemical concentrations of the shallow aquifer (see Section 3.1.1).

Seven metals were detected at least once in 2004, with at least three historical detected concentrations (1999 through 2004) in samples from every Site 1 Landfill groundwater monitoring well. With the exception of barium concentrations in samples from monitoring wells W1-5, W1-8, and W1-12/W1-12R, there were flat visual trends in the concentrations. Monitoring wells W1-5, W1-8, and W1-12/W1-12R, which are all upgradient (background wells) show an increasing concentration trend. There were an additional six metals that were found in samples from most, but not all of the Site 1 Landfill monitoring wells. There was a flat visual trend in the concentrations for these metals. All of these metals are found in seawater (Hem, 1971) and are considered part of the composition of natural groundwater at the Site 1 Landfill.

Seven additional metals were detected at least once in 2004, with at least three historical detected concentrations (1999 through 2004) in samples from a few of the Site 1 groundwater monitoring wells. There were flat visual trends in the concentrations. All of these metals are also found in seawater (Hem, 1971) and are considered part of the composition of natural groundwater at the Site 1 Landfill.

Carbon disulfide was detected once in 2004, with at least three historical detected concentrations (1999 through 2004) in samples from groundwater monitoring well W1-5 (an upgradient monitoring well). There was a flat visual trend in the carbon disulfide concentrations in samples

from monitoring well W1-5. Carbon disulfide is ubiquitous throughout the environment, and is likely naturally occurring in the reducing conditions underlying the Site 1 Landfill (TtFW, 2004).

Toluene was detected once in 2004, with at least three historical detected concentrations (1999 through 2004) in samples from groundwater monitoring well W1-1/W1-1R (a downgradient monitoring well). There was a flat visual trend in the toluene concentrations in samples from monitoring well W1-1/W1-1R. No other volatile organic compounds (VOCs), SVOCs, or pesticides were detected in 2004 with at least three historically detected concentrations (1999 through 2004) in samples from a Site 1 groundwater monitoring well.

During the March 2004 sampling event, only four dissolved metals (aluminum, barium, chromium, and zinc), two VOCs (acetone and carbon disulfide), and six pesticides (4,4-dichlorodiphenyldichloroethane [4,4-DDD], alpha-benzene hexachloride [alpha-BHC], beta-BHC, delta-BHC, dieldrin, and heptachlor) were detected in samples from monitoring wells at concentrations greater than their respective laboratory reporting levels. The concentrations of aluminum, barium, and chromium exceeded their respective calculated concentration limits (CCLs) in samples from a monitoring well. Although aluminum exceeded its CCL in a sample from a downgradient monitoring well (greater than historical background levels), it was not detected in samples from any monitoring well exceeding a CCL in May or November and thus is considered a false positive (see Section 3.2.1). The barium exceedances either occurred in samples from a background well or were less than historical background values and thus were removed from further consideration. The chromium CCL was exceeded in a sample from a background well, and thus was removed from further consideration.

Also during the March 2004 sampling event, only one dissolved metal (barium), one VOC (acetone), and three pesticides (4,4-DDD, alpha-BHC, and dieldrin) were detected in samples from trench well W1-22 at concentrations greater than their respective laboratory reporting levels.

During the May 2004 sampling event, every dissolved metal, three VOCs (acetone, carbon disulfide, and toluene), three pesticides (alpha-BHC, beta-BHC, and gamma-chlordane), and two SVOCs (bis[2-ethylhexyl]phthalate [BeP] and caprolactam) were detected at concentrations greater than their respective laboratory detection levels. The barium, silver, zinc, carbon disulfide, BeP, and caprolactam CCLs were exceeded in samples from a monitoring well. Barium occurred in a sample from a background well or was below historical background values. Thus, it was removed from further consideration. The silver and carbon disulfide exceedances were less than historical background and thus were removed from further consideration. The zinc CCL was exceeded only in a duplicate sample and was re-run, with all re-run values being less than the CCL. The initial zinc analysis was interpreted to be in error. Both the BeP and caprolactam CCL exceedances were only in the duplicate sample. BeP and caprolactam were not detected in the regular sample collected from this well at the same time as the duplicate sample. In addition, BeP is often a laboratory contaminant. However, since this was the first time SVOCs

were sampled at Site 1, there was no historical database for comparison. BeP and caprolactam were not detected in the July and August supplemental groundwater sampling events. The May CCL exceedance for these compounds is treated as a false positive, and these compounds were removed from further consideration.

Also during the May 2004 sampling event, eight dissolved metals (arsenic, barium, beryllium, chromium, cobalt, copper, nickel, and zinc), one VOC (acetone), and one pesticide (gamma-chlordane) were detected in samples from trench well W1-22 at concentrations greater than their respective laboratory detection levels.

During the November 2004 sampling event, every dissolved metal, one VOC (carbon disulfide), and five pesticides (alpha-BHC, beta-BHC, delta-BHC, endrin, and heptachlor epoxide) were detected at concentrations greater than their respective laboratory detection levels. Only barium and carbon disulfide exceeded their respective CCLs in samples from a monitoring well. Barium either occurred in a sample from a background well or was below historical background values. Thus, it was removed from further consideration. The carbon disulfide CCL was exceeded at estimated values in only duplicate samples. Both exceedances occurred in samples from background wells and therefore were removed from further consideration.

Also during the November 2004 sampling event, 11 dissolved metals (aluminum, arsenic, barium, beryllium, chromium, cobalt, copper, lead, nickel, thallium, and zinc), and five pesticides (alpha-BHC, beta-BHC, delta-BHC, endrin, and heptachlor epoxide) were detected in samples from trench well W1-22 at concentrations greater than their respective laboratory detection levels.

There were no detections of dissolved mercury or of any SVOC greater than the laboratory reporting level for the supplemental groundwater samples collected in July, August, September, and December 2004. In accordance with the Tech Memo (TtFW, 2004), analytical results obtained throughout 2004 indicate that there has not been a release from the landfill to groundwater.

As part of landfill monitoring activities, methane monitoring was conducted for 19 passive gas vent wells within the Site 1 Landfill and 4 landfill gas monitoring wells on the perimeter of the landfill. Gas monitoring is also performed at the perimeter of the site at 150-foot intervals. No landfill gas is migrating off site.

In general, the percentages of methane gas concentrations within the landfill were slightly lower in November 2004 than in March or May 2004 and are similar to historical concentrations. Methane concentrations were highest in May 2004, near the northern portion of the landfill (GV-8 at 57.9 percent), followed by a detected concentration of 52.1 percent in GV-11, which is near the center of the landfill. None of the perimeter wells showed concentrations of methane above the concentrations limit of 5 percent (all readings were zero percent). Methane was not detected at any of the perimeter monitoring locations in March, May, or November 2004.

As part of landfill maintenance activities, the landfill is routinely inspected and repaired, as necessary. The landfill cover is intact and functional.

6.0 REFERENCES

- Department of the Navy (Navy). 1997. *Moffett Federal Airfield Final Operable Unit 1 Record of Decision*. Moffett Federal Airfield, Moffett Field, California. August 1.
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APPENDIX A

FIELD SAMPLING DATA

REGULARLY SCHEDULED SAMPLING

MARCH 2004



TETRA TECH FW, INC.

LOW-FLOW GROUNDWATER
SAMPLING DATA SHEETPage 1 of 1Date 3-22-04

| | | | |
|------------------------------------------------------|-----------------------------------------------------------------------------------------|------------------------------------------------|-----------------------------------------------------------------------------------------------|
| Well Name <u>WI-1</u> | Screen Interval <u>15-25</u> | Station Elevation <u>GND</u> TOC <u> </u> | Immiscible Phases Present <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Project <u>CTD 71-Site 1, Q1/04</u> | Static Water Level (from TOC) / Time <u>4.87-0819</u> <u>4.87-0820</u> <u>4.88-0821</u> | Average Water Level (from TOC) <u>4.87</u> | |
| Project No. <u>1990-071E</u> | Reference Point <u>TOC</u> | PID Readings (background) <u>0 PPM</u> | |
| Well Location <u>Site 1</u> | Reference Elevation <u> </u> | PID Reading (TOC) <u>0 PPM</u> | |
| Sample Date <u>3-29-04</u> | Static Elevation <u> </u> | Notes <u> </u> | |
| Sampling Personnel <u>B. Ogle</u> <u>M. Ramos</u> | Well Depth MEAS <u>25.90</u> RPTD <u> </u> | Feet of Water <u> </u> | |
| Sample ID <u>71-S1-017</u> | Depth of Bottom of Tubing <u>20'</u> | | |
| Duplicate ID <u>N/A</u> | Depth to Water (w/ Tubing in Well) <u>4.92</u> | | |

PURGING

| Time | Discharge Rate ¹ (L/min) | Dissolved Oxygen (mg/L) | pH | Eh/ORP (mV) | Temp. (°C) | Specific Conduct. (µmhos/cm at °C) | Turbidity (NTU) | Cumulative Volume of Water Removed/Purged (Gallons) | PID/OVA Reading | | Depth to Water ² (ft) | Comments |
|------|-------------------------------------|-------------------------|------|-------------|------------|------------------------------------|-----------------|-----------------------------------------------------|-----------------|--|----------------------------------|----------|
| 1006 | 0.34µ | 11.2 | 6.59 | 221 | 23.09 | 59860 | 0.0 | 0.3 | | | 4.92 | |
| 1009 | 0.3 | 5.3 | 6.62 | 221 | 23.07 | 59990 | 0.0 | 0.5 | | | 4.91 | |
| 1012 | 0.3 | 4.3 | 6.64 | 224 | 23.15 | 60030 | 0.0 | 0.7 | | | 4.90 | |
| 1015 | 0.3 | 4.2 | 6.66 | 224 | 23.27 | 60052 | 0.0 | 0.9 | | | 4.91 | |
| 1018 | 0.3 | 4.1 | 6.67 | 225 | 23.30 | 59968 | 0.0 | 1.2 | | | 4.91 | |
| 1021 | Well | Stable | | | | | | | | | | |
| 1022 | Collect | Sample | | | | | | | | | | |
| | | | | | | | | | | | | |
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Notes:

- Purge rate = 0.2 - 0.5 L/minute
- Drawdown shall be <0.33 foot

SAMPLE PARAMETERS

| | | | | | | | |
|----------|---------------|----------|---------------|---------------|---------------|--|--|
| 3 x VOCs | 2 x Pesticide | 2 x PCBs | 1 x T. Metals | 1 x A. Metals | 1 x TOC/Ni-NA | | |
|----------|---------------|----------|---------------|---------------|---------------|--|--|

SAMPLE RATE

| | | | | | | | |
|---------|-------|-------|---------|-------|-------|--|--|
| 0.1 L/M | 0.34µ | 0.34µ | 0.3 L/M | 0.34µ | 0.34µ | | |
|---------|-------|-------|---------|-------|-------|--|--|

Notes:

- Sample rate for VOCs analysis = 0.1 - 0.2 L/minute
- Sample rate for non-VOCs analysis = purge rate = 0.2 - 0.5 L/minute

Condition of Well: Bailed water from vaultRemarks: VOCs effervesced. A. Metals were filtered in field. Mercury included in analysis

FIELD EQUIPMENT

| | | |
|---------------------------------------------|--------------------------------|---------------------------------------------------------------------------------------------------|
| pH Meter <u>Hydrolab</u> | Serial Number <u>37995</u> | Number of Bottles <u>10</u> |
| Temperature Meter <u> </u> | Serial Number <u> </u> | |
| Turbidity Meter <u> </u> | Serial Number <u> </u> | |
| Spec. Elec. Cond. Meter <u> </u> | Serial Number <u> </u> | Field Notebook <u>Page 119</u> |
| ORP Meter <u> </u> | Serial Number <u> </u> | |
| D.O. Meter <u> </u> | Serial Number <u> </u> | Sample Method <u>Low-flow grab</u> |
| Interface Probe <u>Solinst</u> | Serial Number <u>27582</u> | |
| PID/OVA <u>MiniRAE 2000</u> | Serial Number <u>00320</u> | |
| Pump <u>Geotech</u> | Serial Number <u>A01006563</u> | |
| Filter Apparatus <u>Geotech 0.45 micron</u> | | Discharge Water Containerized <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |



TETRA TECH FW, INC.

LOW-FLOW GROUNDWATER
SAMPLING DATA SHEETPage 1 of 1Date 3-22-04

| | | |
|-------------------------------------|-----------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| Well Name <u>W1-5</u> | Screen Interval <u>14.5-19.5</u> | Station Elevation <u>GND</u> TOC <u>Immiscible Phases Present</u> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Project <u>CTD 71-Site 1, Q1/04</u> | Static Water Level (from TOC) / Time <u>4.99-0909</u> <u>5.00-0910</u> <u>5.01-0911</u> | |
| Project No. <u>1990-071E</u> | Average Water Level (from TOC) <u>5.00</u> | |
| Well Location <u>Site 1</u> | Reference Point <u>TOC</u> | PID Readings (background) <u>0 ppm</u> |
| Sample Date <u>3-30-04</u> | Reference Elevation <u> </u> | PID Reading (TOC) <u>0 ppm</u> |
| Sampling Personnel <u>B. Ogle</u> | Static Elevation <u> </u> | Notes <u> </u> |
| <u>M. Ramos</u> | Well Depth MEAS <u>21.24</u> RPTD <u> </u> | Feet of Water <u> </u> |
| Sample ID <u>71-S1-025</u> | Depth of Bottom of Tubing <u>17.0</u> | |
| Duplicate ID <u>N/A</u> | Depth to Water (w/ Tubing in Well) <u>5.11</u> | |

PURGING

| Time | Discharge Rate ¹ (L/min) | Dissolved Oxygen (mg/L) | pH | EH/ORP (mV) | Temp. (°C) | Specific Conduct. (µmhos/cm at °C) | Turbidity (NTU) | Cumulative Volume of Water Removed/Purged (Gallons) | PID/OVA Reading | | Depth to Water ² (ft) | Comments |
|------|-------------------------------------|-------------------------|------|-------------|------------|------------------------------------|-----------------|-----------------------------------------------------|-----------------|-------|----------------------------------|----------|
| | | | | | | | | | Location | Value | | |
| 1342 | 0.3 | 15.7 | 6.52 | 174 | 18.98 | 24199 | 0.0 | 0.25 | | | 5.13 | |
| 1345 | 0.3 | 7.0 | 6.60 | 113 | 19.17 | 22964 | 0.0 | 0.5 | | | 5.13 | |
| 1348 | 0.3 | 5.0 | 6.64 | 11 | 19.23 | 22552 | 0.0 | 0.8 | | | 5.12 | |
| 1351 | 0.3 | 4.3 | 6.66 | -13 | 19.32 | 24993 | 0.0 | 1.0 | | | 5.12 | |
| 1354 | 0.3 | 4.0 | 6.64 | -33 | 19.36 | 22761 | 0.0 | 1.2 | | | 5.13 | |
| 1357 | 0.3 | 3.7 | 6.65 | -44 | 19.37 | 22587 | 0.0 | 1.5 | | | 5.13 | |
| 1400 | 0.3 | 3.6 | 6.63 | -43 | 19.38 | 22309 | 0.0 | 1.7 | | | 5.13 | |
| 1403 | 0.3 | 3.5 | 6.63 | -44 | 19.38 | 22298 | 0.0 | 2.0 | | | 5.12 | |
| 1405 | Collect sample | | | | | | | | | | | |
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Notes:

1. Purge rate = 0.2 - 0.5 L/minute

2. Drawdown shall be <0.33 foot

SAMPLE PARAMETERS

| | | | | | | | | |
|---------|--------------|---------|--------------|--------------|--------|-------|--|--|
| 3x VOCs | 2x Pesticide | 2x PCBs | 1x T. Metals | 1x D. Metals | 1x TOC | NI-NA | | |
|---------|--------------|---------|--------------|--------------|--------|-------|--|--|

SAMPLE RATE

| | | | | | | | |
|-----------|-----------|-----------|-----------|-----------|-----------|--|--|
| 0.1 L/min | 0.3 L/min | 0.3 L/min | 0.3 L/min | 0.3 L/min | 0.3 L/min | | |
|-----------|-----------|-----------|-----------|-----------|-----------|--|--|

Notes:

1. Sample rate for VOCs analysis = 0.1 - 0.2 L/minute

2. Sample rate for non-VOCs analysis = purge rate = 0.2 - 0.5 L/minute

Condition of Well: GoodRemarks: VOCs effervesced. D. Metal were field filtered

FIELD EQUIPMENT

| | | |
|-----------------------------------------------------|-------------------------------------------|---------------------------------------------------------------------------------------------------|
| pH Meter <u>Hydrolab</u> | Serial Number <u>37995</u> | Number of Bottles <u>10</u> |
| Temperature Meter <u> </u> | Serial Number <u> </u> | |
| Turbidity Meter <u> </u> | Serial Number <u> </u> | |
| Spec. Elec. Cond. Meter <u> </u> | Serial Number <u> </u> | Field Notebook <u>Page 126</u> |
| ORP Meter <u> </u> | Serial Number <u> </u> | Sample Method <u>low-flow grab</u> |
| D.O. Meter <u> </u> | Serial Number <u> </u> | |
| Interface Probe <u>Solinst</u> | Serial Number <u>27582</u> | |
| PID/OVA <u>MiniRAE 2000</u> | Serial Number <u>00320</u> | |
| Pump <u>Geotech</u> | Serial Number <u>A01006563</u> | |
| Filter Apparatus <u>Geotech 0.45 micron</u> | | Discharge Water Containerized <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |



TETRA TECH FW, INC.

LOW-FLOW GROUNDWATER
SAMPLING DATA SHEETPage 1 of 1Date 3-22-04

| | | | |
|------------------------------------------------------|-----------------------------------------------------------------------------------------|---------------------------------------------|-----------------------------------------------------------------------------------------------|
| Well Name <u>W1-8</u> | Screen Interval <u>13-18</u> | Station Elevation <u>GND</u> TOC <u>TOC</u> | Immiscible Phases Present <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Project <u>CTD 71-Site 1, Q1/04</u> | Static Water Level (from TOC) / Time <u>5.11-0914</u> <u>5.11-0915</u> <u>5.12-0916</u> | Average Water Level (from TOC) <u>5.11</u> | |
| Project No. <u>1990-071E</u> | Reference Point <u>TOC</u> | PID Readings (background) <u>0 ppm</u> | |
| Well Location <u>Site 1</u> | Reference Elevation <u></u> | PID Reading (TOC) <u>0 ppm</u> | |
| Sample Date <u>3-30-04</u> | Static Elevation <u></u> | Notes <u></u> | |
| Sampling Personnel <u>B. Dale</u> <u>M. Ramos</u> | Well Depth MEAS <u>22.56</u> RPTD <u></u> | Feet of Water <u></u> | |
| Sample ID <u>71-S1-026</u> | Depth of Bottom of Tubing <u>15.5</u> | | |
| Duplicate ID <u>71-S1-027</u> | Depth to Water (w/ Tubing in Well) <u>5.18</u> | | |

PURGING

| Time | Discharge Rate ¹ (L/min) | Dissolved Oxygen (mg/L) | pH | Eh/ORP (mV) | Temp. (°C) | Specific Conduct. (µmhos/cm at °C) | Turbidity (NTU) | Cumulative Volume of Water Removed/Purged (Gallons) | PID/OVA Reading | | Depth to Water ² (ft) | Comments |
|------|-------------------------------------|-------------------------|------|-------------|------------|------------------------------------|-----------------|-----------------------------------------------------|-----------------|--|----------------------------------|----------|
| 1449 | 0.3 | 12.1 | 6.72 | 122 | 19.35 | 56993 | 0.0 | 0.2 | | | 5.19 | |
| 1452 | 0.3 | 6.4 | 6.79 | 119 | 18.46 | 57035 | 0.0 | 0.5 | | | 5.20 | |
| 1465 | 0.3 | 5.2 | 6.74 | 118 | 18.41 | 56972 | 0.0 | 0.8 | | | 5.19 | |
| 1458 | 0.3 | 4.6 | 6.78 | 115 | 18.42 | 56877 | 0.0 | 1.0 | | | 5.18 | |
| 1501 | 0.3 | 3.5 | 6.77 | 102 | 18.41 | 57213 | 0.0 | 1.2 | | | 5.20 | |
| 1504 | 0.3 | 3.5 | 6.79 | 100 | 18.42 | 57240 | 0.0 | 1.5 | | | 5.20 | |
| 1507 | 0.3 | 3.5 | 6.79 | 99 | 18.45 | 57270 | 0.0 | 1.75 | | | 5.19 | |
| 1510 | Collect | Sample | | | | | | | | | | |
| 1540 | Collect | Duplicate | | | | | | | | | | |

Notes:

1. Purge rate = 0.2 - 0.5 L/minute

2. Drawdown shall be <0.33 foot

SAMPLE PARAMETERS

| | | | | | | | |
|---------|--------------|---------|--------------|--------------|--------------|--|--|
| 3x VOCs | 2x Pesticide | 2x PCBs | 1x T. Metals | 1x D. Metals | 1x TOC/N1-NA | | |
|---------|--------------|---------|--------------|--------------|--------------|--|--|

SAMPLE RATE

| | | | | | | | |
|-----------|-----------|-----------|-----------|-----------|-----------|--|--|
| 0.1 L/min | 0.3 L/min | 0.3 L/min | 0.3 L/min | 0.3 L/min | 0.3 L/min | | |
|-----------|-----------|-----------|-----------|-----------|-----------|--|--|

Notes:

1. Sample rate for VOCs analysis = 0.1 - 0.2 L/minute

2. Sample rate for non-VOCs analysis = purge rate = 0.2 - 0.5 L/minute

Condition of Well: GoodRemarks: VOCs effervesced. D. Metals were field filtered. Field duplicate

FIELD EQUIPMENT

| | | |
|---------------------------------------------|--------------------------------|---------------------------------------------------------------------------------------------------|
| pH Meter <u>Hydrolab</u> | Serial Number <u>37995</u> | Number of Bottles <u>20</u> |
| Temperature Meter <u></u> | Serial Number <u></u> | |
| Turbidity Meter <u></u> | Serial Number <u></u> | |
| Spec. Elec. Cond. Meter <u></u> | Serial Number <u></u> | Field Notebook <u>Page 127</u> |
| ORP Meter <u></u> | Serial Number <u></u> | Sample Method <u>low-flow grab</u> |
| D.O. Meter <u></u> | Serial Number <u></u> | |
| Interface Probe <u>Solinist</u> | Serial Number <u>27582</u> | |
| PID/OVA <u>MiniRAE 2000</u> | Serial Number <u>00320</u> | |
| Pump <u>Geotech</u> | Serial Number <u>A01006563</u> | |
| Filter Apparatus <u>Geotech 0.45 micron</u> | | Discharge Water Containerized <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |



TETRA TECH FW, INC.

LOW-FLOW GROUNDWATER
SAMPLING DATA SHEETPage 1 of 1Date 3-22-04Well Name W1-12RProject CTD 71-Site 1, Q1/04Project No. 1990-071EWell Location Site 1Sample Date 3-24-04Sampling Personnel B. OgleM. RamosSample ID 71-S1-023Duplicate ID N/AScreen Interval 12.5 - 22.5Station Elevation GND TOC Immiscible Phases Present ☐ Yes ☒ NoStatic Water Level (from TOC) / Time 2.37 - 0859 2.38 - 0900 2.39 - 0901Average Water Level (from TOC) 2.38 - 0900Reference Point TOC PID Readings (background) 0 ppmReference Elevation PID Reading (TOC) 0 ppmStatic Elevation Notes Well Depth MEAS 25.70 RPTD Feet of Water Depth of Bottom of Tubing 17.5Depth to Water (w/ Tubing in Well) 2.40

PURGING

| Time | Discharge Rate ¹ (L/min) | Dissolved Oxygen (mg/L) | pH | Eh/ORP (mV) | Temp. (°C) | Specific Conduct. (µmhos/cm at °C) | Turbidity (NTU) | Cumulative Volume of Water Removed/Purged (Gallons) | PID/OVA Reading | | Depth to Water ² (ft) | Comments |
|------|----------------------------------------|----------------------------|------|----------------|---------------|---------------------------------------|--------------------|--------------------------------------------------------|-----------------|-------|----------------------------------|----------|
| | | | | | | | | | Location | Value | | |
| 1355 | 0.3 | 16.1 | 6.96 | 207 | 24.13 | 44071 | 0.0 | 0.2 | | | 2.40 | |
| 1358 | 0.3 | 6.1 | 6.98 | 201 | 24.20 | 43510 | 0.0 | 0.4 | | | 2.39 | |
| 1401 | 0.3 | 4.7 | 6.99 | 196 | 24.21 | 40011 | 0.0 | 0.7 | | | 2.41 | |
| 1404 | 0.3 | 4.2 | 6.99 | 194 | 24.15 | 40306 | 0.0 | 1.0 | | | 2.41 | |
| 1407 | 0.3 | 3.5 | 7.04 | 190 | 24.03 | 44875 | 0.0 | 1.2 | | | 2.42 | |
| 1410 | 0.3 | 3.4 | 7.02 | 187 | 23.94 | 34322 | 0.0 | 1.5 | | | 2.41 | |
| 1413 | 0.3 | 3.3 | 7.05 | 184 | 24.05 | 40862 | 0.0 | 1.7 | | | 2.42 | |
| 1416 | 0.3 | 3.2 | 7.10 | 182 | 24.05 | 41031 | 0.0 | 2.0 | | | 2.41 | |
| 1419 | 0.3 | 3.3 | 7.08 | 185 | 23.98 | 41093 | 0.0 | 2.2 | | | 2.40 | |
| 1425 | Collect | Sample | | | | | | | | | | |

Notes:

1. Purge rate = 0.2 - 0.5 L/minute

2. Drawdown shall be <0.33 foot

SAMPLE PARAMETERS

3 x VOCs | 2 x Pesticide | 2 x PCBs | 1 x T. Metals | 1 x D. Metals | 1 x TOC | NI-NA

SAMPLE RATE

0.1 L/min | 0.3 L/min | 0.3 L/min | 0.3 L/min | 0.3 L/min | 0.3 L/min

Notes:

1. Sample rate for VOCs analysis = 0.1 - 0.2 L/minute

2. Sample rate for non-VOCs analysis = purge rate = 0.2 - 0.5 L/minute

Condition of Well: GoodRemarks: VOCs effervesced. D. Metals were field filtered

FIELD EQUIPMENT

pH Meter HydrolabTemperature Meter Turbidity Meter Spec. Elec. Cond. Meter ORP Meter D.O. Meter Interface Probe SolinstPID/OVA MiniRAE 2000Pump GeotechFilter Apparatus Geotech 0.45 micronSerial Number 37995Serial Number Serial Number Serial Number Serial Number Serial Number 27582Serial Number 00320Serial Number A01006563Serial Number Number of Bottles 10Field Notebook Page 122Sample Method Low-flow grabDischarge Water Containerized ☒ Yes ☐ No



TETRA TECH FW, INC.

LOW-FLOW GROUNDWATER
SAMPLING DATA SHEETPage 1 of 1Date 3-22-04

| | | | |
|------------------------------------------------------|-----------------------------------------------------------------------------------------------|---------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| Well Name <u>WI-14</u> | Screen Interval <u>4.1 - 14.7</u> | Station Elevation <u> </u> GND <u> </u> TOC <u> </u> | Immiscible Phases Present <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Project <u>CTD 71-SITE 1, Q1/04</u> | Static Water Level (from TOC) / Time <u>5.05 - 0847</u> <u>5.05 - 0848</u> <u>5.05 - 0849</u> | | |
| Project No. <u>1990-071E</u> | Average Water Level (from TOC) <u>5.05</u> | | |
| Well Location <u>Site 1</u> | Reference Point <u>TOC</u> | PID Readings (background) <u>Off</u> | |
| Sample Date <u>3-30-04</u> | Reference Elevation <u> </u> | PID Reading (TOC) <u>Off</u> | |
| Sampling Personnel <u>B. Dale</u> <u>M. Ramos</u> | Static Elevation <u> </u> | Notes <u> </u> | |
| | Well Depth MEAS <u>17.60</u> RPTD <u> </u> | Feet of Water <u> </u> | |
| Sample ID <u>71-S1-022</u> | Depth of Bottom of Tubing <u>9.10</u> | | |
| Duplicate ID <u>N/A</u> | Depth to Water (w/ Tubing in Well) <u>5.10</u> | | |

PURGING

| Time | Discharge Rate ¹ (L/min) | Dissolved Oxygen (mg/L) | pH | Eh/ORP (mV) | Temp. (°C) | Specific Conduct. (µmhos/cm at °C) | Turbidity (NTU) | Cumulative Volume of Water Removed/Purged (Gallons) | PID/OVA Reading | | Depth to Water ² (ft) | Comments |
|------|-------------------------------------|-------------------------|------|-------------|------------|------------------------------------|-----------------|-----------------------------------------------------|-----------------|-------|----------------------------------|----------|
| | | | | | | | | | Location | Value | | |
| 1000 | 0.3 | 4.4 | 6.48 | 1 | 18.21 | 21808 | 0.0 | 0.3 | | | 5.12 | |
| 1003 | 0.3 | 6.0 | 6.52 | -2 | 18.10 | 25186 | 0.0 | 0.5 | | | 5.20 | |
| 1006 | 0.3 | 4.6 | 6.56 | -12 | 18.01 | 26450 | 0.0 | 0.8 | | | 5.31 | |
| 1009 | 0.3 | 4.1 | 6.53 | -9 | 17.96 | 26447 | 0.0 | 1.0 | | | 5.20 | |
| 1012 | 0.3 | 4.0 | 6.48 | -8 | 17.99 | 32076 | 0.0 | 1.2 | | | 5.13 | |
| 1015 | 0.3 | 3.9 | 6.49 | -7 | 18.04 | 31594 | 0.0 | 1.5 | | | 5.17 | |
| 1018 | 0.3 | 3.8 | 6.49 | -8 | 18.01 | 31628 | 0.0 | 1.7 | | | 5.17 | |
| 1020 | Collect Sample | | | | | | | | | | | |
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Notes:

- Purge rate = 0.2 - 0.5 L/minute
- Drawdown shall be <0.33 foot

SAMPLE PARAMETERS

| | | | | | | | |
|----------|---------------|----------|---------------|---------------|---------------|--|--|
| 3 x VOCs | 2 x Pesticide | 2 x PCBs | 1 x T. Metals | 1 x D. Metals | 1 x TOC/Ni-NA | | |
|----------|---------------|----------|---------------|---------------|---------------|--|--|

SAMPLE RATE

| | | | | | | | |
|---------|---------|---------|---------|---------|---------|--|--|
| 0.1 L/M | 0.3 L/M | 0.3 L/M | 0.3 L/M | 0.3 L/M | 0.3 L/M | | |
|---------|---------|---------|---------|---------|---------|--|--|

Notes:

- Sample rate for VOCs analysis = 0.1 - 0.2 L/minute
- Sample rate for non-VOCs analysis = purge rate = 0.2 - 0.5 L/minute

Condition of Well: GoodRemarks: VOCs effluenced - D. Metals were field filtered

FIELD EQUIPMENT

| | | |
|---------------------------------------------|--------------------------------|---------------------------------------------------------------------------------------------------|
| pH Meter <u>Hydrolab</u> | Serial Number <u>37995</u> | Number of Bottles <u>10</u> |
| Temperature Meter <u> </u> | Serial Number <u> </u> | |
| Turbidity Meter <u> </u> | Serial Number <u> </u> | |
| Spec. Elec. Cond. Meter <u> </u> | Serial Number <u> </u> | Field Notebook <u>Page 125</u> |
| ORP Meter <u> </u> | Serial Number <u> </u> | |
| D.O. Meter <u> </u> | Serial Number <u> </u> | Sample Method <u>Low-flow grab</u> |
| Interface Probe <u>Solinst</u> | Serial Number <u>27582</u> | |
| PID/OVA <u>MiniRAE 2000</u> | Serial Number <u>00320</u> | |
| Pump <u>Geotech</u> | Serial Number <u>A01006563</u> | |
| Filter Apparatus <u>Geotech 0.45 micron</u> | | Discharge Water Containerized <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |



TETRA TECH FW, INC.

LOW-FLOW GROUNDWATER
SAMPLING DATA SHEETPage 1 of 1Date 3-22-04

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|-------------------------------------|-----------------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------------------------------------------------------------------------|
| Well Name <u>W1-15</u> | Screen Interval <u>4.4-14.4</u> | Station Elevation <u>GND</u> TOC <u> </u> | Immiscible Phases Present <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Project <u>CTD 71-Site 1, Q1/04</u> | Static Water Level (from TOC) / Time <u>5.15-0825</u> <u>5.16-0826</u> <u>5.16-0827</u> | | |
| Project No. <u>1990-071E</u> | Average Water Level (from TOC) <u>5.16</u> | | |
| Well Location <u>Site 1</u> | Reference Point <u>TOC</u> | PID Readings (background) <u>0 ppm</u> | |
| Sample Date <u>3-29-04</u> | Reference Elevation <u> </u> | PID Reading (TOC) <u>0 ppm</u> | |
| Sampling Personnel <u>B. Ogle</u> | Static Elevation <u> </u> | Notes <u> </u> | |
| <u>M. Ramos</u> | Well Depth MEAS <u>17.43</u> RPTD <u> </u> | Feet of Water <u> </u> | |
| Sample ID <u>71-S1-018</u> | Depth of Bottom of Tubing <u>9.4</u> | | |
| Duplicate ID <u>N/A</u> | Depth to Water (w/ Tubing in Well) <u>5.19</u> | | |

PURGING

| Time | Discharge Rate ¹ (L/min) | Dissolved Oxygen (mg/L) | pH | Eh/ORP (mV) | Temp. (°C) | Specific Conduct. (µmhos/cm at °C) | Turbidity (NTU) | Cumulative Volume of Water Removed/Purged (Gallons) | PID/OVA Reading | | Depth to Water ² (ft) | Comments |
|------|-------------------------------------|-------------------------|------|-------------|------------|------------------------------------|-----------------|-----------------------------------------------------|-----------------|-------|----------------------------------|----------|
| | | | | | | | | | Location | Value | | |
| 1106 | 0.3 | 4.4 | 6.60 | -92 | 25.91 | 18733 | 0.0 | 0.3 | | | 5.20 | |
| 1109 | 0.3 | 3.9 | 6.75 | -58 | 25.56 | 18709 | 0.0 | 0.6 | | | 5.19 | |
| 1112 | 0.3 | 3.4 | 6.80 | -28 | 25.46 | 18409 | 0.0 | 0.9 | | | 5.20 | |
| 1115 | 0.3 | 3.1 | 6.78 | -47 | 25.60 | 18607 | 0.0 | 1.2 | | | 5.20 | |
| 1118 | 0.3 | 2.9 | 6.78 | -45 | 25.55 | 18751 | 0.0 | 1.5 | | | 5.21 | |
| 1121 | 0.3 | 2.9 | 6.80 | -48 | 25.54 | 18744 | 0.0 | 1.8 | | | 5.20 | |
| 1124 | Well | Stable | | | | | | | | | | |
| 1125 | Collect | Sample | | | | | | | | | | |
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Notes:

1. Purge rate = 0.2 - 0.5 L/minute

2. Drawdown shall be <0.33 foot

SAMPLE PARAMETERS

| | | | | | | | |
|----------|---------------|----------|---------------|---------------|---------------|--|--|
| 3 x VOCs | 2 x Pesticide | 2 x PCBs | 1 x T. Metals | 1 x D. Metals | 1 x TOC/N1-NA | | |
|----------|---------------|----------|---------------|---------------|---------------|--|--|

SAMPLE RATE

| | | | | | | | |
|-----------|-----------|-----------|-----------|-----------|-----------|--|--|
| 0.1 L/min | 0.3 L/min | 0.3 L/min | 0.3 L/min | 0.3 L/min | 0.3 L/min | | |
|-----------|-----------|-----------|-----------|-----------|-----------|--|--|

Notes:

1. Sample rate for VOCs analysis = 0.1 - 0.2 L/minute

2. Sample rate for non-VOCs analysis = purge rate = 0.2 - 0.5 L/minute

Condition of Well: GoodRemarks: VOC sample effervesced. D. Metals were field filtered. Run MS/MSD

FIELD EQUIPMENT

| | | |
|-------------------------------------------|---------------------------------|---------------------------------------------------------------------------------------------------|
| pH Meter <u>Hydrolab</u> | Serial Number <u>37995</u> | Number of Bottles <u>30</u> |
| Temperature Meter <u> </u> | Serial Number <u> </u> | |
| Turbidity Meter <u> </u> | Serial Number <u> </u> | |
| Spec. Elec. Cond. Meter <u> </u> | Serial Number <u> </u> | Field Notebook <u>Page 120</u> |
| ORP Meter <u> </u> | Serial Number <u> </u> | Sample Method <u>Low-flow grab</u> |
| D.O. Meter <u> </u> | Serial Number <u> </u> | |
| Interface Probe <u>Solinst</u> | Serial Number <u>27582</u> | |
| PID/OVA <u>MiniRAE 2000</u> | Serial Number <u>00320</u> | |
| Pump <u>Geotech</u> | Serial Number <u>A01006563</u> | |
| Filter Apparatus <u>Geotech 0.45 µm</u> | | Discharge Water Containerized <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |



TETRA TECH FW, INC.

LOW-FLOW GROUNDWATER
SAMPLING DATA SHEETPage 1 of 1Date 3-22-04Well Name W1-16Project CTD 71-SITE 1, Q1/04Project No. 1990-071EWell Location Site 1Sample Date 3-31-04Sampling Personnel B. OgleM. RamosSample ID 71-S1-029

Duplicate ID _____

Screen Interval 5.4-15.4

Station Elevation _____ GND _____ TOC _____

Static Water Level (from TOC) / Time 6.37-0924 6.36-0925 6.38-0926Average Water Level (from TOC) 6.37Reference Point TOC

Reference Elevation _____

Static Elevation _____

Well Depth MEAS 18.20 RPTD _____Depth of Bottom of Tubing 10.4Depth to Water (w/ Tubing in Well) 6.55Immiscible Phases Present ☐ Yes ☒ NoPID Readings (background) 0 ppmPID Reading (TOC) 0 ppm

Notes _____

Feet of Water _____

PURGING

| Time | Discharge Rate ¹ (L/min) | Dissolved Oxygen (mg/L) | pH | Eh/ORP (mV) | Temp. (°C) | Specific Conduct. (µmhos/cm at °C) | Turbidity (NTU) | Cumulative Volume of Water Removed/Purged (Gallons) | PID/OVA Reading | | Depth to Water ² (ft) | Comments |
|------|-------------------------------------|-------------------------|------|-------------|------------|------------------------------------|-----------------|-----------------------------------------------------|-----------------|-------|----------------------------------|----------|
| | | | | | | | | | Location | Value | | |
| 1052 | 0.3 | 8.5 | 6.32 | -77 | 20.13 | 57544 | 0.0 | 0.2 | | | 6.55 | |
| 1055 | 0.3 | 5.0 | 6.33 | -90 | 20.42 | 57931 | 0.0 | 0.5 | | | 6.56 | |
| 1058 | 0.3 | 4.1 | 6.37 | -87 | 20.56 | 59252 | 0.0 | 0.7 | | | 6.56 | |
| 1101 | 0.3 | 3.9 | 6.36 | -83 | 20.90 | 59499 | 0.0 | 1.0 | | | 6.57 | |
| 1104 | 0.3 | 3.9 | 6.37 | -87 | 20.94 | 59560 | 0.0 | 1.3 | | | 6.56 | |
| 1107 | 0.3 | 3.8 | 6.37 | -84 | 21.00 | 59560 | 0.0 | 1.5 | | | 6.55 | |
| 1110 | Collect Sample | | | | | | | | | | | |
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Notes:

1. Purge rate = 0.2 - 0.5 L/minute

2. Drawdown shall be <0.33 foot

SAMPLE PARAMETERS

| | | | | | | | |
|---------|--------------|---------|--------------|--------------|--------------|--|--|
| 3x VOCs | 2x Pesticide | 2x PCBs | 1x T. Metals | 1x A. Metals | 1x TOC/Ni-NA | | |
|---------|--------------|---------|--------------|--------------|--------------|--|--|

SAMPLE RATE

| | | | | | | | |
|-----------|-----------|-----------|-----------|-----------|-----------|--|--|
| 0.1 L/min | 0.3 L/min | 0.3 L/min | 0.3 L/min | 0.3 L/min | 0.3 L/min | | |
|-----------|-----------|-----------|-----------|-----------|-----------|--|--|

Notes:

1. Sample rate for VOCs analysis = 0.1 - 0.2 L/minute

2. Sample rate for non-VOCs analysis = purge rate = 0.2 - 0.5 L/minute

Condition of Well: GoodRemarks: VOCs effervesced. A. Metals were field filtered

FIELD EQUIPMENT

pH Meter Hydrolab

Temperature Meter _____

Turbidity Meter _____

Spec. Elec. Cond. Meter _____

ORP Meter _____

D.O. Meter _____

Interface Probe SolinstPID/OVA MiniRAE 2000Pump GeotechFilter Apparatus Geotech 0.45 micronSerial Number 37995

Serial Number _____

Serial Number _____

Serial Number _____

Serial Number _____

Serial Number 27582Serial Number 00320Serial Number A01006563

Serial Number _____

Number of Bottles 10Field Notebook Page 129Sample Method LOW-FLOW grabDischarge Water Containerized ☒ Yes ☐ No



TETRA TECH FW, INC.

LOW-FLOW GROUNDWATER
SAMPLING DATA SHEETPage 1 of 1Date 3-22-04

| | | |
|------------------------------------------------------|-----------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| Well Name <u>W1-19</u> | Screen Interval <u>14-19</u> | Station Elevation <u>GND</u> TOC <u>Immiscible Phases Present</u> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Project <u>CTD 71-Site 1, Q1/04</u> | Static Water Level (from TOC) / Time <u>5.62-0844</u> <u>5.63-0845</u> <u>5.63-0846</u> | |
| Project No. <u>1990-071E</u> | Average Water Level (from TOC) <u>5.63</u> | |
| Well Location <u>Site 1</u> | Reference Point <u>TOC</u> | PID Readings (background) <u>0 ppm</u> |
| Sample Date <u>3-30-04</u> | Reference Elevation <u></u> | PID Reading (TOC) <u>0 ppm</u> |
| Sampling Personnel <u>B. Ogle</u> <u>M. Ramos</u> | Static Elevation <u></u> | Notes <u></u> |
| | Well Depth MEAS <u>21.31</u> RPTD <u></u> | Feet of Water <u></u> |
| Sample ID <u>71-S1-019</u> | Depth of Bottom of Tubing <u>16.5</u> | |
| Duplicate ID <u>71-S1-020</u> | Depth to Water (w/ Tubing in Well) <u>4.78</u> | |

PURGING

| Time | Discharge Rate ¹ (L/min) | Dissolved Oxygen (mg/L) | pH | Eh/ORP (mV) | Temp. (°C) | Specific Conduct. (µmhos/cm at °C) | Turbidity (NTU) | Cumulative Volume of Water Removed/Purged (Gallons) | PID/OVA Reading | | Depth to Water ² (ft) | Comments |
|------|-------------------------------------|-------------------------|------|-------------|------------|------------------------------------|-----------------|-----------------------------------------------------|-----------------|-------|----------------------------------|----------|
| | | | | | | | | | Location | Value | | |
| 0833 | 0.3 | 14.5 | 6.88 | 99 | 18.14 | 20287 | 0.0 | 0.2 | | | 4.79 | |
| 0836 | 0.3 | 9.0 | 6.47 | 58 | 18.65 | 20639 | 0.0 | 0.5 | | | 4.78 | |
| 0839 | 0.3 | 6.9 | 6.46 | 55 | 19.06 | 18451 | 0.0 | 0.8 | | | 4.78 | |
| 0842 | 0.3 | 6.0 | 6.46 | 55 | 19.16 | 18636 | 0.0 | 1.0 | | | 4.79 | |
| 0845 | 0.3 | 5.8 | 6.46 | 54 | 19.11 | 18306 | 0.0 | 1.2 | | | 4.80 | |
| 0848 | 0.3 | 5.6 | 6.46 | 54 | 19.01 | 17800 | 0.0 | 1.5 | | | 4.80 | |
| 0851 | 0.3 | 4.7 | 6.47 | 53 | 18.91 | 17529 | 0.0 | 1.75 | | | 4.80 | |
| 0854 | 0.3 | 4.7 | 6.46 | 52 | 18.86 | 17066 | 0.0 | 2.0 | | | 4.79 | |
| 0857 | 0.3 | 4.7 | 6.46 | 52 | 18.95 | 17600 | 0.0 | 2.2 | | | 4.80 | |
| 0900 | Collect | Sample | | | | | | | | | | |
| 0920 | Collect | FD | | | | | | | | | | |

Notes:

1. Purge rate = 0.2 - 0.5 L/minute

2. Drawdown shall be <0.33 foot

SAMPLE PARAMETERS

| | | | | | | | |
|---------|--------------|---------|--------------|--------------|--------------|--|--|
| 3x VOCs | 2x Pesticide | 2x PCBs | 1x T. Metals | 1x D. Metals | 1x TOC/N1-NA | | |
|---------|--------------|---------|--------------|--------------|--------------|--|--|

SAMPLE RATE

| | | | | | | | |
|-----------|-----------|-----------|-----------|-----------|-----------|--|--|
| 0.1 L/min | 0.3 L/min | 0.3 L/min | 0.3 L/min | 0.3 L/min | 0.3 L/min | | |
|-----------|-----------|-----------|-----------|-----------|-----------|--|--|

Notes:

1. Sample rate for VOCs analysis = 0.1 - 0.2 L/minute

2. Sample rate for non-VOCs analysis = purge rate = 0.2 - 0.5 L/minute

Condition of Well: GoodRemarks: VOCs effluenced. D. Metals were field filtered. Field duplicate

FIELD EQUIPMENT

| | | |
|---------------------------------------------|--------------------------------|---------------------------------------------------------------------------------------------------|
| pH Meter <u>Hydrolab</u> | Serial Number <u>37995</u> | Number of Bottles <u>20</u> |
| Temperature Meter <u></u> | Serial Number <u></u> | |
| Turbidity Meter <u></u> | Serial Number <u></u> | |
| Spec. Elec. Cond. Meter <u></u> | Serial Number <u></u> | Field Notebook <u>Page 124</u> |
| ORP Meter <u></u> | Serial Number <u></u> | Sample Method <u>low-flow grab</u> |
| D.O. Meter <u></u> | Serial Number <u></u> | |
| Interface Probe <u>Solinst</u> | Serial Number <u>27582</u> | |
| PID/OVA <u>MiniRAE 2000</u> | Serial Number <u>00320</u> | |
| Pump <u>Geotech</u> | Serial Number <u>A01006563</u> | |
| Filter Apparatus <u>Geotech 0.45 micron</u> | | Discharge Water Containerized <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |



TETRA TECH FW, INC.

LOW-FLOW GROUNDWATER
SAMPLING DATA SHEETPage 1 of 1Date 3-22-04

| | | |
|-----------------------------------------------------|-----------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| Well Name <u>W1-22</u> | Screen Interval <u>2.5-7.0</u> | Station Elevation <u>GND</u> TOC <u>Immiscible Phases Present</u> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Project <u>CTD 71-Site 1, Q1/04</u> | Static Water Level (from TOC) / Time <u>3.45-0904</u> <u>3.46-0905</u> <u>3.45-0906</u> | |
| Project No. <u>1990-071E</u> | Average Water Level (from TOC) <u>3.45</u> | |
| Well Location <u>Site 1</u> | Reference Point <u>TOC</u> | PID Readings (background) <u>0 ppm</u> |
| Sample Date <u>3-29-04</u> | Reference Elevation | PID Reading (TOC) <u>0 ppm</u> |
| Sampling Personnel <u>B. Dale</u> <u>McK MOS</u> | Static Elevation | Notes |
| | Well Depth MEAS <u>6.75</u> RPTD | Feet of Water |
| Sample ID <u>71-S1-D24</u> | Depth of Bottom of Tubing <u>4.8</u> | |
| Duplicate ID <u>N/A</u> | Depth to Water (w/ Tubing in Well) <u>3.45</u> | |

PURGING

| Time | Discharge Rate ¹ (L/min) | Dissolved Oxygen (mg/L) | pH | Eh/ORP (mV) | Temp. (°C) | Specific Conduct. (µmhos/cm at °C) | Turbidity (NTU) | Cumulative Volume of Water Removed/Purged (Gallons) | PID/OVA Reading | | Depth to Water ² (ft) | Comments |
|------|-------------------------------------|-------------------------|------|-------------|------------|------------------------------------|-----------------|-----------------------------------------------------|-----------------|--|----------------------------------|----------|
| 1445 | 0.3 | 13.2 | 6.65 | 80 | 23.39 | 16677 | 0.0 | 0.3 | | | 3.45 | |
| 1448 | 0.3 | 5.8 | 6.70 | 80 | 23.46 | 19423 | 0.0 | 0.5 | | | 3.45 | |
| 1451 | 0.3 | 4.5 | 6.74 | 80 | 23.47 | 22095 | 0.0 | 0.8 | | | 3.45 | |
| 1454 | 0.3 | 3.7 | 6.78 | 75 | 23.40 | 21762 | 0.0 | 1.1 | | | 3.45 | |
| 1457 | 0.3 | 2.9 | 6.87 | 75 | 23.41 | 18050 | 0.0 | 1.4 | | | 3.45 | |
| 1500 | 0.3 | 2.9 | 6.92 | 75 | 23.65 | 18722 | 0.0 | 1.7 | | | 3.45 | |
| 1503 | 0.3 | 2.8 | 6.94 | 74 | 23.60 | 17943 | 0.0 | 2.0 | | | 3.44 | |
| 1506 | 0.3 | 2.7 | 6.94 | 74 | 23.71 | 17301 | 0.0 | 2.2 | | | 3.45 | |
| 1509 | 0.3 | 2.7 | 6.96 | 72 | 23.79 | 17422 | 0.0 | 2.4 | | | | |
| 1515 | Collect Samples | | | | | | | | | | | |

Notes:

- Purge rate = 0.2 - 0.5 L/minute
- Drawdown shall be <0.33 foot

SAMPLE PARAMETERS

| | | | | | | | |
|----------|---------------|----------|---------------|---------------|---------------|--|--|
| 3 x VOCs | 2 x Pesticide | 2 x PCBs | 1 x T. Metals | 1 x D. Metals | 1 x TOC/Ni-NA | | |
|----------|---------------|----------|---------------|---------------|---------------|--|--|

SAMPLE RATE

| | | | | | | | |
|-----------|-----------|-----------|-----------|-----------|-----------|--|--|
| 0.1 L/min | 0.3 L/min | 0.3 L/min | 0.3 L/min | 0.3 L/min | 0.3 L/min | | |
|-----------|-----------|-----------|-----------|-----------|-----------|--|--|

Notes:

- Sample rate for VOCs analysis = 0.1 - 0.2 L/minute
- Sample rate for non-VOCs analysis = purge rate = 0.2 - 0.5 L/minute

Condition of Well:

Remarks: Good
VOCs slightly effervescent. D. Metals were field filtered

FIELD EQUIPMENT

| | | |
|---------------------------------------------|--------------------------------|---------------------------------------------------------------------------------------------------|
| pH Meter <u>Hydrolab</u> | Serial Number <u>37995</u> | Number of Bottles <u>10</u> |
| Temperature Meter | Serial Number | |
| Turbidity Meter | Serial Number | |
| Spec. Elec. Cond. Meter | Serial Number | Field Notebook <u>Page 123</u> |
| ORP Meter | Serial Number | Sample Method <u>Low-flow grab</u> |
| D.O. Meter | Serial Number | |
| Interface Probe <u>Solinst</u> | Serial Number <u>27582</u> | |
| PID/OVA <u>MiniRAE 2000</u> | Serial Number <u>00320</u> | |
| Pump <u>Geotech</u> | Serial Number <u>AD1006563</u> | |
| Filter Apparatus <u>Geotech 0.45 micron</u> | | Discharge Water Containerized <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |



TETRA TECH FW, INC.

LOW-FLOW GROUNDWATER
SAMPLING DATA SHEETPage 1 of 1Date 3-22-04

| | | | |
|------------------------------------------------------|--------------------------------------------------|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| Well Name <u>W1-23</u> | Screen Interval <u>N/A</u> | Station Elevation <u>GND</u> TOC <u>4.64-0855</u> <u>4.64-0856</u> <u>4.63-0857</u> | Immiscible Phases Present <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Project <u>CTD 71-Site 1, Q1/04</u> | Static Water Level (from TOC) / Time <u>4.64</u> | Average Water Level (from TOC) <u>4.64</u> | |
| Project No. <u>1990-071E</u> | Reference Point <u>TOC</u> | PID Readings (background) <u>0</u> ppm | |
| Well Location <u>Site 1</u> | Reference Elevation | PID Reading (TOC) <u>0</u> ppm | |
| Sample Date <u>3-29-04</u> | Static Elevation | Notes | |
| Sampling Personnel <u>B. Dale</u> <u>M. Ramos</u> | Well Depth MEAS <u>6.01</u> RPTD | Feet of Water | |
| Sample ID <u>71-S1-021</u> | Depth of Bottom of Tubing <u>5.70</u> | | |
| Duplicate ID <u>N/A</u> | Depth to Water (w/ Tubing in Well) <u>4.60</u> | | |

PURGING

| Time | Discharge Rate ¹ (L/min) | Dissolved Oxygen (mg/L) | pH | Eh/ORP (mV) | Temp. (°C) | Specific Conduct. (µmhos/cm at °C) | Turbidity (NTU) | Cumulative Volume of Water Removed/Purged (Gallons) | PID/OVA Reading Location | PID/OVA Reading Value | Depth to Water ² (ft) | Comments |
|------|-------------------------------------|-------------------------|------|-------------|------------|------------------------------------|-----------------|-----------------------------------------------------|--------------------------|-----------------------|----------------------------------|----------|
| 1248 | 0.2 | 19.1 | 6.67 | 150 | 25.61 | 35356 | 0.0 | 0.2 | | | 4.64 | |
| 1251 | 0.15 | 6.9 | 6.70 | 145 | 25.34 | 34060 | 0.0 | 0.35 | | | 4.72 | |
| 1254 | 0.15 | 4.7 | 6.75 | 144 | 25.19 | 33682 | 0.0 | 0.5 | | | 4.77 | |
| 1257 | 0.1 | 3.5 | 6.79 | 145 | 25.13 | 24477 | 0.0 | 0.6 | | | 4.82 | |
| 1300 | 0.1 | 3.2 | 6.80 | 147 | 25.02 | 21769 | 0.0 | 0.7 | | | 4.91 | |
| 1303 | 0.1 | 2.9 | 6.86 | 152 | 24.99 | 21233 | 0.0 | 0.8 | | | 5.01 | |
| 1306 | 0.1 | 2.8 | 6.89 | 155 | 24.85 | 21504 | 0.0 | 0.9 | | | 5.12 | |
| 1309 | 0.1 | 2.7 | 6.89 | 152 | 24.81 | 21179 | 0.0 | 1.0 | | | 5.20 | |
| 1312 | 0.1 | 2.7 | 6.91 | 152 | 24.80 | 21099 | 0.0 | 1.1 | | | 5.34 | |
| 1315 | Collect | Sample | | | | | | | | | | |

Notes:

- Purge rate = 0.2 - 0.5 L/minute
- Drawdown shall be <0.33 foot

SAMPLE PARAMETERS

| | | | | | | | |
|----------|---------------|----------|---------------|---------------|---------------|--|--|
| 3 x VOCs | 2 x Pesticide | 2 x PCBs | 1 x T. Metals | 1 x D. Metals | 1 x TOC/Ni-NA | | |
|----------|---------------|----------|---------------|---------------|---------------|--|--|

SAMPLE RATE

| | | | | | | | |
|-----------|-----------|-----------|-----------|-----------|-----------|--|--|
| 0.1 L/min | 0.3 L/min | 0.3 L/min | 0.3 L/min | 0.3 L/min | 0.3 L/min | | |
|-----------|-----------|-----------|-----------|-----------|-----------|--|--|

Notes:

- Sample rate for VOCs analysis = 0.1 - 0.2 L/minute
- Sample rate for non-VOCs analysis = purge rate = 0.2 - 0.5 L/minute

Condition of Well: Good - Not much water in trenchRemarks: Very Muddy - Ran dry while samples - NO SAMPLES RETAINED

FIELD EQUIPMENT

| | | |
|---------------------------------------------|--------------------------------|---------------------------------------------------------------------------------------------------|
| pH Meter <u>Hydrolab</u> | Serial Number <u>37995</u> | Number of Bottles <u>0</u> |
| Temperature Meter | Serial Number | |
| Turbidity Meter | Serial Number | |
| Spec. Elec. Cond. Meter | Serial Number | Field Notebook <u>Pg. 121</u> |
| ORP Meter | Serial Number | Sample Method <u>Low-flow grab</u> |
| D.O. Meter | Serial Number | |
| Interface Probe <u>Solinst</u> | Serial Number <u>27582</u> | |
| PID/OVA <u>MiniRAE 2000</u> | Serial Number <u>00320</u> | |
| Pump <u>Geotech</u> | Serial Number <u>AD1006563</u> | |
| Filter Apparatus <u>Geotech 0.45 micron</u> | | Discharge Water Containerized <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |



TETRA TECH FW, INC.

LOW-FLOW GROUNDWATER
SAMPLING DATA SHEETPage 1 of 1Date 3-22-04

| | | |
|-------------------------------------|-----------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| Well Name <u>WI-24</u> | Screen Interval <u>6-16</u> | Station Elevation <u>GND</u> TOC <u>Immiscible Phases Present</u> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Project <u>CTD 71-STE 1 - Q1/04</u> | Static Water Level (from TOC) / Time <u>6.64-0919</u> <u>6.65-0920</u> <u>6.65-0921</u> | |
| Project No. <u>1990.071E</u> | Average Water Level (from TOC) <u>6.65</u> | |
| Well Location <u>Site 1</u> | Reference Point <u>TOC</u> | PID Readings (background) <u>Open</u> |
| Sample Date <u>3-31-04</u> | Reference Elevation <u></u> | PID Reading (TOC) <u>Open</u> |
| Sampling Personnel <u>B. Ogle</u> | Static Elevation <u></u> | Notes <u></u> |
| <u>M. Ramos</u> | Well Depth MEAS <u>20.22</u> RPTD <u></u> | Feet of Water <u></u> |
| Sample ID <u>71-S1-028</u> | Depth of Bottom of Tubing <u>11</u> | |
| Duplicate ID <u>N/A</u> | Depth to Water (w/ Tubing in Well) <u>6.72</u> | |

PURGING

| Time | Discharge Rate ¹ (L/min) | Dissolved Oxygen (mg/L) | pH | Eh/ORP (mV) | Temp. (°C) | Specific Conduct. (µmhos/cm at °C) | Turbidity (NTU) | Cumulative Volume of Water Removed/Purged (Gallons) | PID/OVA Reading | | Depth to Water ² (ft) | Comments |
|------|-------------------------------------|-------------------------|------|-------------|------------|------------------------------------|-----------------|-----------------------------------------------------|-----------------|-------|----------------------------------|----------|
| | | | | | | | | | Location | Value | | |
| 1002 | 0.3 | 24.7 | 6.41 | -44 | 18.92 | 51946 | 0.0 | 0.2 | | | 6.72 | |
| 1005 | 0.3 | 10.9 | 6.45 | -47 | 19.23 | 50888 | 0.0 | 0.5 | | | 6.71 | |
| 1008 | 0.3 | 6.5 | 6.45 | -49 | 19.75 | 47273 | 0.0 | 0.7 | | | 6.71 | |
| 1011 | 0.3 | 5.2 | 6.42 | -43 | 20.19 | 45472 | 0.0 | 1.0 | | | 6.73 | |
| 1014 | 0.3 | 5.0 | 6.41 | -41 | 20.22 | 44899 | 0.0 | 1.3 | | | 6.72 | |
| 1017 | 0.3 | 4.9 | 6.40 | -40 | 20.21 | 45306 | 0.0 | 1.6 | | | 6.73 | |
| 1020 | Collect | Samples | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
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Notes:

- Purge rate = 0.2 - 0.5 L/minute
- Drawdown shall be <0.33 foot

SAMPLE PARAMETERS

| | | | | | | | |
|---------|--------------|---------|---------------|---------------|-----------------|--|--|
| 3x VOCs | 2x Pesticide | 2x PCBs | 1 x T. Metals | 1 x D. Metals | 1 x TOC / Ni-Na | | |
|---------|--------------|---------|---------------|---------------|-----------------|--|--|

SAMPLE RATE

| | | | | | | | |
|-----------|-----------|-----------|-----------|-----------|-----------|--|--|
| 0.1 L/min | 0.3 L/min | 0.3 L/min | 0.3 L/min | 0.3 L/min | 0.3 L/min | | |
|-----------|-----------|-----------|-----------|-----------|-----------|--|--|

Notes:

- Sample rate for VOCs analysis = 0.1 - 0.2 L/minute
- Sample rate for non-VOCs analysis = purge rate = 0.2 - 0.5 L/minute

Condition of Well: GoodRemarks: VOCs effervesced - D. Metals were field filtered

FIELD EQUIPMENT

| | | |
|---------------------------------------------|--------------------------------|---------------------------------------------------------------------------------------------------|
| pH Meter <u>Hydrolab</u> | Serial Number <u>37995</u> | Number of Bottles <u>10</u> |
| Temperature Meter <u></u> | Serial Number <u></u> | |
| Turbidity Meter <u></u> | Serial Number <u></u> | |
| Spec. Elec. Cond. Meter <u></u> | Serial Number <u></u> | Field Notebook <u>Page 128</u> |
| ORP Meter <u></u> | Serial Number <u></u> | Sample Method <u>Low-flow</u> |
| D.O. Meter <u></u> | Serial Number <u></u> | |
| Interface Probe <u>Solinst</u> | Serial Number <u>27582</u> | |
| PID/OVA <u>MiniRAE 200</u> | Serial Number <u>00320</u> | |
| Pump <u>Geotech</u> | Serial Number <u>A01006563</u> | |
| Filter Apparatus <u>Geotech 0.45 micron</u> | | Discharge Water Containerized <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |

MAY 2004



TETRA TECH FW, INC.

LOW-FLOW GROUNDWATER SAMPLING DATA SHEET

Page 1 of 1Date 5/24/04

| | | | |
|-------------------------------------------|-----------------------------------------------------------------------------------------|---------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| Well Name <u>W1-1</u> | Screen Interval <u>15-25</u> | Station Elevation <u> </u> GND <u> </u> TOC <u> </u> | Immiscible Phases Present <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Project <u>CTO 86-Site 1, 2nd Quarter</u> | Static Water Level (from TOC) / Time <u>3.22/1108</u> <u>3.22/1109</u> <u>3.22/1110</u> | | |
| Project No. <u>1990.086E</u> | Average Water Level (from TOC) <u>3.22</u> | | |
| Well Location <u>Moffett- Site 1</u> | Reference Point <u>TOC</u> | PID Readings (background) <u>Oppu</u> | |
| Sample Date <u>5/24/04</u> | Reference Elevation <u> </u> | PID Reading (TOC) <u>Oppu</u> | |
| Sampling Personnel <u>D. HARRISON</u> | Static Elevation <u> </u> | Notes <u> </u> | |
| <u>M. RAMOS</u> | Well Depth MEAS <u>25.90</u> RPTD <u> </u> | Feet of Water <u> </u> | |
| Sample ID <u>86-S1-001</u> | Depth of Bottom of Tubing <u>20</u> | | |
| Duplicate ID <u>86-S1-002</u> | Depth to Water (w/ Tubing in Well) <u>3.21</u> | | |

| PURGING | | | | | | | | | | | | |
|---------|-------------------------------------|-------------------------|------|-------------|------------|------------------------------------|-----------------|-----------------------------------------------------|-----------------|-------|----------------------------------|----------|
| Time | Discharge Rate ¹ (L/min) | Dissolved Oxygen (mg/L) | pH | EH/ORP (mV) | Temp. (°C) | Specific Conduct. (µmhos/cm at °C) | Turbidity (NTU) | Cumulative Volume of Water Removed/Purged (Gallons) | PID/OVA Reading | | Depth to Water ² (ft) | Comments |
| | | | | | | | | | Location | Value | | |
| 1245 | .4 | 2.75 | 6.39 | 171 | 25.26 | 44701 | 21.1 | .2 | | | 3.26 | |
| 1248 | .4 | 0.78 | 6.41 | 184 | 25.02 | 44582 | 19.6 | .4 | | | 3.28 | |
| 1251 | .4 | 0.57 | 6.45 | 185 | 24.73 | 43651 | 13.7 | .6 | | | 3.32 | |
| 1254 | .4 | 0.50 | 6.45 | 171 | 24.95 | 43039 | 11.4 | .8 | | | 3.35 | |
| 1257 | .4 | 0.47 | 6.47 | 159 | 25.03 | 43057 | 12.8 | 1 | | | 3.35 | |
| 1300 | .4 | 0.42 | 6.48 | 116 | 24.88 | 43087 | 12.6 | 1.2 | | | 3.36 | |
| 1305 | Collect | Sample | | | | | | | | | | |
| 1320 | Collect | Field Duplicate | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

- Notes:
- Purge rate = 0.2 - 0.5 L/minute
 - Drawdown shall be <0.33 foot

SAMPLE PARAMETERS

| | | | | | | | |
|----------|-----------|---------|----------|------------|------------|--|--|
| 6x VOC's | 4x SVOC's | 4x Pest | 4x PCB's | 2x D.M.H.S | 2x D. Merc | | |
|----------|-----------|---------|----------|------------|------------|--|--|

SAMPLE RATE

| | | | | | | | |
|----------|----|----|----|----|----|--|--|
| .1 L/min | .4 | .4 | .4 | .4 | .4 | | |
|----------|----|----|----|----|----|--|--|

- Notes:
- Sample rate for VOCs analysis = 0.1 - 0.2 L/minute
 - Sample rate for non-VOCs analysis = purge rate = 0.2 - 0.5 L/minute

Condition of Well: GoodRemarks:

FIELD EQUIPMENT

| | |
|-----------------------------------------|-----------------------------|
| pH Meter <u>HYDROLAB</u> | Serial Number <u>#38520</u> |
| Temperature Meter <u>HYDROLAB</u> | Serial Number <u>#38520</u> |
| Turbidity Meter <u>HYDROLAB</u> | Serial Number <u>#38520</u> |
| Spec. Elec. Cond. Meter <u>HYDROLAB</u> | Serial Number <u>#38520</u> |
| ORP Meter <u>HYDROLAB</u> | Serial Number <u>#38520</u> |
| D.O. Meter <u>HYDROLAB</u> | Serial Number <u>#38520</u> |
| Interface Probe <u>SOLINST</u> | Serial Number <u>#25582</u> |
| PID/OVA <u>MINI-RAE</u> | Serial Number <u>#00320</u> |
| Pump <u>GEO-PUMP</u> | Serial Number <u>#01689</u> |
| Filter Apparatus <u>GEO-45 MICRON</u> | |

Number of Bottles 22

Field Notebook Pg. 3

Sample Method Low Flow

Discharge Water Containerized ☒ Yes ☐ No

| | | | |
|-------------------------------------------|-----------------------------------------------------------------------------------------|---------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| Well Name <u>W1-5</u> | Screen Interval <u>14.5-19.5</u> | Station Elevation <u> </u> GND <u> </u> TOC <u> </u> | Immiscible Phases Present <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Project <u>CTO 86-Site 1, 2nd Quarter</u> | Static Water Level (from TOC) / Time <u>5.29/1213</u> <u>5.29/1214</u> <u>5.29/1215</u> | | |
| Project No. <u>1990.086E</u> | Average Water Level (from TOC) <u>5.29</u> | | |
| Well Location <u>Moffett- Site 1</u> | Reference Point <u>TOC</u> | PID Readings (background) <u>off pm</u> | |
| Sample Date <u>5/24/04</u> | Reference Elevation <u> </u> | PID Reading (TOC) <u>off pm</u> | |
| Sampling Personnel <u>D. HARRISON</u> | Static Elevation <u> </u> | Notes <u> </u> | |
| <u>M. RAMOS</u> | Well Depth MEAS <u>91.30</u> RPTD <u> </u> | Feet of Water <u> </u> | |
| Sample ID <u>86-S1-010</u> | Depth of Bottom of Tubing <u>15.5</u> | | |
| Duplicate ID <u>N/A -COLLECT MS/MSD</u> | Depth to Water (w/ Tubing in Well) <u>5.33</u> | | |

PURGING

[illegible]

Notes:

1. Purge rate = 0.2 - 0.5 L/minute
2. Drawdown shall be <0.33 foot.

SAMPLE PARAMETERS

| SAMPLE PARAMETERS | | | | | | | |
|-------------------|----------|-----------|----------|---------|------------|---------------|--|
| 3x | 3x VOC's | 2x SVOC's | 2x Pest. | 2x PERK | 1x D. MTHS | 1x D. Mercury | |
| SAMPLE RATE | | | | | | | |

SAMPLE RATE

[illegible]

Notes:

1. Sample rate for VOCs analysis = 0.1 - 0.2 L/minute
2. Sample rate for non-VOCs analysis = purge rate = 0.2 - 0.5 L/minute

Condition of Well: Good

Remarks: VOC samples effervescence

FIELD EQUIPMENT

pH Meter HYDROLAB Serial Number #38520
 Temperature Meter HYDROLAB Serial Number #38520
 Turbidity Meter HYDROLAB Serial Number #38520
 Spec. Elec. Cond. Meter HYDROLAB Serial Number #38520
 ORP Meter HYDROLAB Serial Number #38520
 D.O. Meter HYDROLAB Serial Number #38520
 Interface Probe SOLINST Serial Number #25582
 PID/OVA MINI-RAE Serial Number #00320
 Pump GEO-PUMP Serial Number #01689
 Filter Apparatus GEO- 45 MICRON

Number of Bottles 33
 Field Notebook Pg 11
 Sample Method Low Flow
 Discharge Water Containerized ☒ Yes ☐ No



TETRA TECH FW, INC.

LOW-FLOW GROUNDWATER
SAMPLING DATA SHEETPage 1 of 1Date 5/24/04

| | | | |
|----------------------------------------------------------|-----------------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------------------------------------------------------------------------|
| Well Name <u>W1-8</u> | Screen Interval <u>13-18</u> | Station Elevation <u>GND</u> TOC <u> </u> | Immiscible Phases Present <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Project <u>CTO 86-Site 1, 2nd Quarter</u> | Static Water Level (from TOC) / Time <u>5.38/1219</u> <u>5.38/1219</u> <u>5.38/1220</u> | Average Water Level (from TOC) <u>5.38</u> | |
| Project No. <u>1990.086E</u> | Reference Point <u>TOC</u> | PID Readings (background) <u>Open</u> | |
| Well Location <u>Moffett- Site 1</u> | Reference Elevation <u> </u> | PID Reading (TOC) <u>Open</u> | |
| Sample Date <u>5/26/04</u> | Static Elevation <u> </u> | Notes <u> </u> | |
| Sampling Personnel <u>D. HARRISON</u> <u>M. RAMOS</u> | Well Depth MEAS <u>22.64</u> RPTD <u> </u> | Feet of Water <u> </u> | |
| Sample ID <u>86-S1-011</u> | Depth of Bottom of Tubing <u>15.5</u> | | |
| Duplicate ID <u>N/A</u> | Depth to Water (w/ Tubing in Well) <u>5.40</u> | | |

PURGING

| Time | Discharge Rate ¹ (L/min) | Dissolved Oxygen (mg/L) | pH | Eh/ORP (mV) | Temp. (°C) | Specific Conduct. (µmhos/cm at °C) | Turbidity (NTU) | Cumulative Volume of Water Removed/Purged (Gallons) | PID/OVA Reading | | Depth to Water ² (ft) | Comments |
|------|-------------------------------------|-------------------------|------|-------------|------------|------------------------------------|-----------------|-----------------------------------------------------|-----------------|-------|----------------------------------|----------|
| | | | | | | | | | Location | Value | | |
| 1225 | .4 | 1.70 | 6.96 | 305 | 26.78 | 50429 | 3.0 | 12 | | | 5.43 | |
| 1228 | .4 | 0.80 | 6.94 | 319 | 25.88 | 50575 | 3.8 | .4 | | | 5.48 | |
| 1231 | .4 | 0.60 | 6.82 | 334 | 23.35 | 50442 | 2.9 | .6 | | | 5.53 | |
| 1234 | .4 | 0.45 | 6.93 | 341 | 24.80 | 51130 | 2.6 | .8 | | | 5.55 | |
| 1237 | .4 | 0.43 | 6.93 | 342 | 24.52 | 51715 | 2.1 | 1 | | | 5.56 | |
| 1240 | Call out Sample | | | | | | | | | | | |
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Notes:

1. Purge rate = 0.2 - 0.5 L/minute

2. Drawdown shall be <0.33 foot

SAMPLE PARAMETERS

| | | | | | | | |
|----------|-----------|---------|----------|------------|--------------|--|--|
| 3x VOC's | 2x SVOC's | 2x Pest | 2x PCB's | 1x D-Metab | 1x D-Mercury | | |
|----------|-----------|---------|----------|------------|--------------|--|--|

SAMPLE RATE

| | | | | | | | |
|----|----|----|----|----|----|--|--|
| .1 | .4 | .4 | .4 | .4 | .4 | | |
|----|----|----|----|----|----|--|--|

Notes:

1. Sample rate for VOCs analysis = 0.1 - 0.2 L/minute

2. Sample rate for non-VOCs analysis = purge rate = 0.2 - 0.5 L/minute

Condition of Well: GoodRemarks: VOC Samples effervesced

FIELD EQUIPMENT

pH Meter HYDROLAB
 Temperature Meter HYDROLAB
 Turbidity Meter HYDROLAB
 Spec. Elec. Cond. Meter HYDROLAB
 ORP Meter HYDROLAB
 D.O. Meter HYDROLAB
 Interface Probe SOLINST
 PID/OVA MINI-RAE
 Pump GEO-PUMP
 Filter Apparatus GEO-45 MICRON

Serial Number #38520
 Serial Number #38520
 Serial Number #38520
 Serial Number #38520
 Serial Number #38520
 Serial Number #38520
 Serial Number #25582
 Serial Number #00320
 Serial Number #01689

Number of Bottles 11Field Notebook Pg 12Sample Method Low FlowDischarge Water Containerized ☒ Yes ☐ No



TETRA TECH FW, INC.

LOW-FLOW GROUNDWATER SAMPLING DATA SHEET

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| | | | | |
|-------------------------------------------|-------------------------------------------------------|--------------------------------------------|----------------------|-----------------------------------------------------------------------------------------------|
| Well Name <u>W1-12R</u> | Screen Interval <u>15-25</u> | Station Elevation <u>GND</u> | TOC <u>2.40/1203</u> | Immiscible Phases Present <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Project <u>CTO 86-Site 1, 2nd Quarter</u> | Static Water Level (from TOC) / Time <u>2.40/1203</u> | Average Water Level (from TOC) <u>2.40</u> | | |
| Project No. <u>1990.086E</u> | Reference Point <u>TOC</u> | PID Readings (background) <u>Oppm</u> | | |
| Well Location <u>Moffett- Site 1</u> | Reference Elevation <u></u> | PID Reading (TOC) <u>Oppm</u> | | |
| Sample Date <u>5/25/04</u> | Static Elevation <u></u> | Notes <u></u> | | |
| Sampling Personnel <u>D. HARRISON</u> | Well Depth MEAS <u>25.66</u> | Feet of Water <u></u> | | |
| <u>M. RAMOS</u> | Depth of Bottom of Tubing <u>20</u> | | | |
| Sample ID <u>86-S1-008</u> | Depth to Water (w/ Tubing in Well) <u>2.72</u> | | | |
| Duplicate ID <u>N/A</u> | | | | |

| PURGING | | | | | | | | | | | | |
|---------|-------------------------------------|-------------------------|------|-------------|------------|------------------------------------|-----------------|-----------------------------------------------------|-----------------|-------|----------------------------------|----------|
| Time | Discharge Rate ¹ (L/min) | Dissolved Oxygen (mg/L) | pH | Eh/ORP (mV) | Temp. (°C) | Specific Conduct. (µmhos/cm at °C) | Turbidity (NTU) | Cumulative Volume of Water Removed/Purged (Gallons) | PID/OVA Reading | | Depth to Water ² (ft) | Comments |
| | | | | | | | | | Location | Value | | |
| 1317 | .4 | 6.20 | 6.66 | 197 | 22.39 | 51346 | 95.4 | .2 | | | 2.74 | |
| 1320 | .4 | 9.4 | 6.66 | 197 | 22.15 | 51727 | 99.5 | .4 | | | 2.74 | |
| 1323 | .4 | 0.65 | 6.66 | 180 | 21.73 | 50670 | 70.5 | .6 | | | 2.74 | |
| 1326 | .4 | 0.61 | 6.67 | 178 | 21.58 | 50701 | 56.3 | .8 | | | 2.74 | |
| 1329 | .4 | 0.56 | 6.67 | 177 | 21.46 | 50048 | 48.5 | .1 | | | 2.74 | |
| 1332 | .4 | 0.55 | 6.66 | 180 | 21.37 | 53308 | 47.4 | 1.2 | | | 2.74 | |
| 1335 | .4 | 0.56 | 6.68 | 182 | 21.26 | 52604 | 36.3 | 1.4 | | | 2.74 | |
| 1340 | Collect Sample | | | | | | | | | | | |
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Notes:

- Purge rate = 0.2 - 0.5 L/minute
- Drawdown shall be <0.33 foot

SAMPLE PARAMETERS

| | | | | | | | |
|---------|----------|----------|----------|------------|-------------|--|--|
| 3x VOCs | 2x SVOCs | 2x Pest. | 2x PCB's | 1x D. MTHS | 1x D. Merc. | | |
|---------|----------|----------|----------|------------|-------------|--|--|

SAMPLE RATE

| | | | | | | | |
|----------|----|----|----|----|----|--|--|
| .1 L/min | .4 | .4 | .4 | .4 | .4 | | |
|----------|----|----|----|----|----|--|--|

Notes:

- Sample rate for VOCs analysis = 0.1 - 0.2 L/minute
- Sample rate for non-VOCs analysis = purge rate = 0.2 - 0.5 L/minute

Condition of Well: GoodRemarks: VOC Samples effervesced

FIELD EQUIPMENT

| | | |
|-----------------------------------------|-----------------------------|---------------------------------------------------------------------------------------------------|
| pH Meter <u>HYDROLAB</u> | Serial Number <u>#38520</u> | Number of Bottles <u>11</u> |
| Temperature Meter <u>HYDROLAB</u> | Serial Number <u>#38520</u> | |
| Turbidity Meter <u>HYDROLAB</u> | Serial Number <u>#38520</u> | |
| Spec. Elec. Cond. Meter <u>HYDROLAB</u> | Serial Number <u>#38520</u> | Field Notebook <u>Pg. 8</u> |
| ORP Meter <u>HYDROLAB</u> | Serial Number <u>#38520</u> | |
| D.O. Meter <u>HYDROLAB</u> | Serial Number <u>#38520</u> | Sample Method <u>Low Flow</u> |
| Interface Probe <u>SOLINST</u> | Serial Number <u>#25582</u> | |
| PID/OVA <u>MINI-RAE</u> | Serial Number <u>#00320</u> | |
| Pump <u>GEO-PUMP</u> | Serial Number <u>#01689</u> | |
| Filter Apparatus <u>GEO-45 MICRON</u> | | Discharge Water Containerized <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |



TETRA TECH FW, INC.

LOW-FLOW GROUNDWATER
SAMPLING DATA SHEETPage 1 of 1Date 5/24/04

| | | | |
|-------------------------------------------|-----------------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------------------------------------------------------------------------|
| Well Name <u>W1-14</u> | Screen Interval <u>4.1-14.1</u> | Station Elevation <u>GND</u> TOC <u> </u> | Immiscible Phases Present <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Project <u>CTO 86-Site 1, 2nd Quarter</u> | Static Water Level (from TOC) / Time <u>5.46/1145</u> <u>5.46/1146</u> <u>5.46/1147</u> | Average Water Level (from TOC) <u>5.46</u> | |
| Project No. <u>1990.086E</u> | Reference Point <u>TOC</u> | PID Readings (background) <u>Oppm</u> | |
| Well Location <u>Moffett- Site 1</u> | Reference Elevation <u> </u> | PID Reading (TOC) <u>Oppm</u> | |
| Sample Date <u>5/25/04</u> | Static Elevation <u> </u> | Notes <u> </u> | |
| Sampling Personnel <u>D. HARRISON</u> | Well Depth MEAS <u>17.67</u> RPTD <u> </u> | Feet of Water <u> </u> | |
| <u>M. RAMOS</u> | Depth of Bottom of Tubing <u>9.1</u> | | |
| Sample ID <u>86-S1-006</u> | Depth to Water (w/ Tubing in Well) <u>5.48</u> | | |
| Duplicate ID <u>86-S1-007</u> | | | |

PURGING

| Time | Discharge Rate ¹ (L/min) | Dissolved Oxygen (mg/L) | pH | Eh/ORP (mV) | Temp. (°C) | Specific Conduct. (µmhos/cm at °C) | Turbidity (NTU) | Cumulative Volume of Water Removed/Purged (Gallons) | PID/OVA Reading | | Depth to Water ² (ft) | Comments |
|------|-------------------------------------|-------------------------|------|-------------|------------|------------------------------------|-----------------|-----------------------------------------------------|-----------------|-------|----------------------------------|----------|
| | | | | | | | | | Location | Value | | |
| 1057 | .1 | 1.13 | 6.74 | -22 | 23.96 | 50926 | 4.9 | .2 | | | 5.55 | |
| 1100 | .4 | 1.01 | 6.76 | -24 | 23.65 | 50682 | 4.4 | .4 | | | 5.59 | |
| 1103 | .4 | 0.51 | 6.76 | -24 | 23.55 | 51507 | 6.1 | .6 | | | 5.62 | |
| 1106 | .4 | 0.41 | 6.74 | -25 | 23.55 | 52397 | 6.6 | .8 | | | 5.66 | |
| 1109 | .4 | 0.41 | 6.70 | -7 | 23.58 | 52777 | 5.8 | 1 | | | 5.68 | |
| 1112 | .4 | 0.39 | 6.71 | -0 | 23.56 | 52978 | 6.4 | 1.2 | | | 5.71 | |
| 1115 | Collect Sample | | | | | | | | | | | |
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Notes:

1. Purge rate = 0.2 - 0.5 L/minute

2. Drawdown shall be <0.33 foot

SAMPLE PARAMETERS

| | | | | | | | |
|----------|-----------|----------|----------|-------------|-------------|--|--|
| 6x VOC's | 4x SVOC's | 4x Pest. | 4x PCB's | 2x D. MTH's | 2x D. Merc. | | |
|----------|-----------|----------|----------|-------------|-------------|--|--|

SAMPLE RATE

| | | | | | | | |
|----------|----|----|----|----|----|--|--|
| .1 L/min | .4 | .4 | .4 | .4 | .4 | | |
|----------|----|----|----|----|----|--|--|

Notes:

1. Sample rate for VOCs analysis = 0.1 - 0.2 L/minute

2. Sample rate for non-VOCs analysis = purge rate = 0.2 - 0.5 L/minute

Condition of Well: GoodRemarks: VOC samples effervesced

FIELD EQUIPMENT

| | | |
|-----------------------------------------|-----------------------------|---------------------------------------------------------------------------------------------------|
| pH Meter <u>HYDROLAB</u> | Serial Number <u>#38520</u> | Number of Bottles <u>22</u> |
| Temperature Meter <u>HYDROLAB</u> | Serial Number <u>#38520</u> | |
| Turbidity Meter <u>HYDROLAB</u> | Serial Number <u>#38520</u> | |
| Spec. Elec. Cond. Meter <u>HYDROLAB</u> | Serial Number <u>#38520</u> | Field Notebook <u>Pg. 7</u> |
| ORP Meter <u>HYDROLAB</u> | Serial Number <u>#38520</u> | |
| D.O. Meter <u>HYDROLAB</u> | Serial Number <u>#38520</u> | Sample Method <u>Low Flow</u> |
| Interface Probe <u>SOLINST</u> | Serial Number <u>#25582</u> | |
| PID/OVA <u>MINI-RAE</u> | Serial Number <u>#00320</u> | |
| Pump <u>GEO-PUMP</u> | Serial Number <u>#01689</u> | |
| Filter Apparatus <u>GEO-45 MICRON</u> | | Discharge Water Containerized <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |



TETRA TECH FW, INC.

LOW-FLOW GROUNDWATER SAMPLING DATA SHEET

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| | | | |
|-------------------------------------------|-----------------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------------------------------------------------------------------------|
| Well Name <u>W1-15</u> | Screen Interval <u>4.4-14.4</u> | Station Elevation <u>GND</u> TOC <u> </u> | Immiscible Phases Present <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Project <u>CTO 86-Site 1, 2nd Quarter</u> | Static Water Level (from TOC) / Time <u>4.55/1114</u> <u>4.55/1115</u> <u>4.55/1116</u> | | |
| Project No. <u>1990.086E</u> | Average Water Level (from TOC) <u>4.55</u> | | |
| Well Location <u>Moffett- Site 1</u> | Reference Point <u>TOC</u> | PID Readings (background) <u>Oppm</u> | |
| Sample Date <u>5/24/04</u> | Reference Elevation <u> </u> | PID Reading (TOC) <u>Oppm</u> | |
| Sampling Personnel <u>D. HARRISON</u> | Static Elevation <u> </u> | Notes <u> </u> | |
| <u>M. RAMOS</u> | Well Depth MEAS <u>17.44</u> RPTD <u> </u> | Feet of Water <u> </u> | |
| Sample ID <u>86-S1-003</u> | Depth of Bottom of Tubing <u>9.4</u> | | |
| Duplicate ID <u>N/A</u> | Depth to Water (w/ Tubing in Well) <u>4.55</u> | | |

| PURGING | | | | | | | | | | | | |
|---------|-------------------------------------|-------------------------|------|-------------|------------|------------------------------------|-----------------|-----------------------------------------------------|-----------------|-------|----------------------------------|----------|
| Time | Discharge Rate ¹ (L/min) | Dissolved Oxygen (mg/L) | pH | Eh/ORP (mV) | Temp. (°C) | Specific Conduct. (µmhos/cm at °C) | Turbidity (NTU) | Cumulative Volume of Water Removed/Purged (Gallons) | PID/OVA Reading | | Depth to Water ² (ft) | Comments |
| | | | | | | | | | Location | Value | | |
| 1350 | .45 | 1.49 | 6.49 | -56 | 27.01 | 33074 | 6.5 | .2 | | | 4.56 | |
| 1353 | .45 | 0.99 | 6.55 | -35 | 26.02 | 33690 | 3.7 | .5 | | | 4.57 | |
| 1356 | .45 | 2.97 | 6.72 | -68 | 25.70 | 33355 | 4.9 | .7 | | | 4.60 | |
| 1359 | .45 | 0.94 | 6.72 | -83 | 25.29 | 33308 | 4.7 | .8 | | | 4.64 | |
| 1402 | .45 | 0.68 | 6.62 | -90 | 25.03 | 38302 | 5.1 | 1 | | | 4.71 | |
| 1405 | .45 | 0.62 | 6.62 | -110 | 25.00 | 44971 | 3.1 | 1.3 | | | 4.72 | |
| 1412 | Collect Sample | | | | | | | | | | | |
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Notes:

- Purge rate = 0.2 - 0.5 L/minute
- Drawdown shall be <0.33 foot

SAMPLE PARAMETERS

| | | | | | | | |
|---------|---------|---------|----------|--------------|-------------|--|--|
| 3x VOCs | 2x PEST | 2x PCBs | 2x SVOCs | 1x D. Metals | 1x D. Merc. | | |
|---------|---------|---------|----------|--------------|-------------|--|--|

SAMPLE RATE

| | | | | | | | |
|----------|-----------|-----------|-----------|-----------|-----------|--|--|
| .1 L/min | .45 L/min | .45 L/min | .45 L/min | .45 L/min | .45 L/min | | |
|----------|-----------|-----------|-----------|-----------|-----------|--|--|

Notes:

- Sample rate for VOCs analysis = 0.1 - 0.2 L/minute
- Sample rate for non-VOCs analysis = purge rate = 0.2 - 0.5 L/minute

Condition of Well: GoodRemarks: VOC samples effervesced

FIELD EQUIPMENT

| | |
|-----------------------------------------|-----------------------------|
| pH Meter <u>HYDROLAB</u> | Serial Number <u>#38520</u> |
| Temperature Meter <u>HYDROLAB</u> | Serial Number <u>#38520</u> |
| Turbidity Meter <u>HYDROLAB</u> | Serial Number <u>#38520</u> |
| Spec. Elec. Cond. Meter <u>HYDROLAB</u> | Serial Number <u>#38520</u> |
| ORP Meter <u>HYDROLAB</u> | Serial Number <u>#38520</u> |
| D.O. Meter <u>HYDROLAB</u> | Serial Number <u>#38520</u> |
| Interface Probe <u>SOLINST</u> | Serial Number <u>#25582</u> |
| PID/OVA <u>MINI-RAE</u> | Serial Number <u>#00320</u> |
| Pump <u>GEO-PUMP</u> | Serial Number <u>#01689</u> |
| Filter Apparatus <u>GEO-45 MICRON</u> | |

Number of Bottles 11Field Notebook pg 3+4 4+5Sample Method Low FlowDischarge Water Containerized ☒ Yes ☐ No

| | | |
|-------------------------------------------|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| Well Name <u>W1-16</u> | Screen Interval <u>5.4-15.4</u> | |
| Project <u>CTO 86-Site 1, 2nd Quarter</u> | Station Elevation <u> </u> GND <u> </u> TOC <u> </u> | Immiscible Phases Present <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Project No. <u>1990.086E</u> | Static Water Level (from TOC) / Time <u>9.45/1228</u> <u>9.45/1229</u> <u>9.45/1230</u> | |
| Well Location <u>Moffett- Site 1</u> | Average Water Level (from TOC) <u>9.45</u> | |
| Sample Date <u>5/26/24</u> | Reference Point <u>TOC</u> | PID Readings (background) <u>Open</u> |
| Sampling Personnel <u>D. HARRISON</u> | Reference Elevation <u> </u> | PID Reading (TOC) <u>Open</u> |
| <u>M. RAMOS</u> | Static Elevation <u> </u> | Notes <u> </u> |
| | Well Depth MEAS <u>18.21</u> RPTD <u> </u> | Feet of Water <u> </u> |
| Sample ID <u>86-S1-013</u> | Depth of Bottom of Tubing <u>10.4</u> | |
| Duplicate ID <u>N/A</u> | Depth to Water (w/ Tubing in Well) <u>9.43</u> | |

[illegible]

Notes:

1. Purge rate = 0.2 - 0.5 L/minute
2. Drawdown shall be <0.33 foot

SAMPLE PARAMETERS

| | | | | | | | |
|----------|-----------|----------|----------|------------|---------------|--|--|
| 3x VOC'S | 2x SVOC'S | 2x Asst. | 2x PCB'S | 1x D.MTL'S | 1x D. MERCURY | | |
|----------|-----------|----------|----------|------------|---------------|--|--|

SAMPLE RATE

| | | | | | | | |
|-----|----|----|----|----|----|--|--|
| 14m | .4 | .4 | .4 | .4 | .4 | | |
|-----|----|----|----|----|----|--|--|

Notes:

1. Sample rate for VOCs analysis = 0.1 - 0.2 L/minute
2. Sample rate for non-VOCs analysis = purge rate = 0.2 - 0.5 L/minute

Condition of Well: Good

Remarks: VOL samples effervesced

FIELD EQUIPMENT

| | | | | | |
|-------------------------|---------------|---------------|--------|-------------------------------|---------------------------------------------------------------------|
| pH Meter | HYDROLAB | Serial Number | #38520 | Number of Bottles | 11 |
| Temperature Meter | HYDROLAB | Serial Number | #38520 | | |
| Turbidity Meter | HYDROLAB | Serial Number | #38520 | | |
| Spec. Elec. Cond. Meter | HYDROLAB | Serial Number | #38520 | Field Notebook | Pg 14 |
| ORP Meter | HYDROLAB | Serial Number | #38520 | | |
| D.O. Meter | HYDROLAB | Serial Number | #38520 | Sample Method | Low Flow |
| Interface Probe | SOLINST | Serial Number | #25582 | | |
| PID/OVA | MINI-RAE | Serial Number | #00320 | | |
| Pump | GEO-PUMP | Serial Number | #01689 | | |
| Filter Apparatus | GEO-45 MICRON | | | Discharge Water Containerized | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |



TETRA TECH FW, INC.

LOW-FLOW GROUNDWATER
SAMPLING DATA SHEETPage 1 of 1Date 5/24/04

| | |
|-------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| Well Name <u>W1-19</u> | Screen Interval <u>14-19</u> |
| Project <u>CTO 86-Site 1, 2nd Quarter</u> | Station Elevation <u>GND</u> TOC <u> </u> Immiscible Phases Present <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Project No. <u>1990.086E</u> | Static Water Level (from TOC) / Time <u>5.02/1138</u> <u>5.03/1139</u> <u>5.03/1140</u> |
| Well Location <u>Moffett-Site 1</u> | Average Water Level (from TOC) <u>5.03</u> |
| Sample Date <u>5/25/04</u> | Reference Point <u>TOC</u> PID Readings (background) <u>Oppm</u> |
| Sampling Personnel <u>D. HARRISON</u> | Reference Elevation <u> </u> PID Reading (TOC) <u>Oppm</u> |
| <u>M. RAMOS</u> | Static Elevation <u> </u> Notes <u> </u> |
| | Well Depth MEAS <u>21.30</u> RPTD <u> </u> Feet of Water <u> </u> |
| Sample ID <u>86-S1-004</u> | Depth of Bottom of Tubing <u>16.5</u> |
| Duplicate ID <u>N/A</u> | Depth to Water (w/ Tubing in Well) <u>5.05</u> |

PURGING

| Time | Discharge Rate ¹ (L/min) | Dissolved Oxygen (mg/L) | pH | Eh/ORP (mV) | Temp. (°C) | Specific Conduct. (µmhos/cm at °C) | Turbidity (NTU) | Cumulative Volume of Water Removed/Purged (Gallons) | PID/OVA Reading | | Depth to Water ² (ft) | Comments |
|-------|----------------------------------------|----------------------------|------|----------------|---------------|---------------------------------------|--------------------|--------------------------------------------------------|-----------------|-------|----------------------------------|----------|
| | | | | | | | | | Location | Value | | |
| 10:06 | .4 | 5.85 | 6.64 | 88 | 21.26 | 52303 | 6.6 | .2 | | | 5.11 | |
| 10:09 | .4 | 0.78 | 6.67 | 96 | 21.36 | 51792 | 5.9 | .4 | | | 5.13 | |
| 10:12 | .4 | 0.57 | 6.67 | 96 | 21.47 | 52008 | 4.2 | .6 | | | 5.19 | |
| 10:15 | .4 | 0.52 | 6.68 | 99 | 21.60 | 52654 | 4.9 | .8 | | | 5.22 | |
| 10:18 | .4 | 0.48 | 6.68 | 99 | 21.72 | 52114 | 3.8 | 1 | | | 5.24 | |
| 10:21 | .4 | 0.44 | 6.69 | 102 | 21.83 | 52161 | 3.7 | 1.2 | | | 5.25 | |
| 10:25 | Collect Sample | | | | | | | | | | | |
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Notes:

- Purge rate = 0.2 - 0.5 L/minute
- Drawdown shall be <0.33 foot

SAMPLE PARAMETERS

| | | | | | | | |
|-------------|----------|--------|---------|------------|------------|--|--|
| 3x VOCs | 2x SVOCs | 2x AsT | 2x PCBs | 2x D.M.H.s | 1x D.M.A.s | | |
| SAMPLE RATE | | | | | | | |
| .4 L/min | .4 | .4 | .4 | .4 | .4 | | |

Notes:

- Sample rate for VOCs analysis = 0.1 - 0.2 L/minute
- Sample rate for non-VOCs analysis = purge rate = 0.2 - 0.5 L/minute

Condition of Well: GoodRemarks: VOC samples effervesced

FIELD EQUIPMENT

| | | | |
|-------------------------|---------------|---------------|--------|
| pH Meter | HYDROLAB | Serial Number | #38520 |
| Temperature Meter | HYDROLAB | Serial Number | #38520 |
| Turbidity Meter | HYDROLAB | Serial Number | #38520 |
| Spec. Elec. Cond. Meter | HYDROLAB | Serial Number | #38520 |
| ORP Meter | HYDROLAB | Serial Number | #38520 |
| D.O. Meter | HYDROLAB | Serial Number | #38520 |
| Interface Probe | SOLINST | Serial Number | #25582 |
| PID/OVA | MINI-RAE | Serial Number | #00320 |
| Pump | GEO-PUMP | Serial Number | #01689 |
| Filter Apparatus | GEO-45 MICRON | | |

Number of Bottles 11Field Notebook Pg 4Sample Method Low FlowDischarge Water Containerized ☒ Yes ☐ No



TETRA TECH FW, INC.

LOW-FLOW GROUNDWATER
SAMPLING DATA SHEETPage 1 of 1Date 5/24/04

| | | |
|-------------------------------------------|-----------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| Well Name <u>W1-22</u> | Screen Interval <u>N/A</u> | Station Elevation <u>GND</u> TOC <u>Immiscible Phases Present</u> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Project <u>CTO 86-Site 1, 2nd Quarter</u> | Static Water Level (from TOC) / Time <u>3.52/1206</u> <u>3.52/1207</u> <u>3.52/1208</u> | |
| Project No. <u>1990.086E</u> | Average Water Level (from TOC) <u>3.52</u> | |
| Well Location <u>Moffett-Site 1</u> | Reference Point <u>TOC</u> | PID Readings (background) <u>0ppm</u> |
| Sample Date <u>5/26/04</u> | Reference Elevation <u></u> | PID Reading (TOC) <u>0ppm</u> |
| Sampling Personnel <u>D. HARRISON</u> | Static Elevation <u></u> | Notes <u></u> |
| <u>M. RAMOS</u> | Well Depth <u>MEAS 66</u> RPTD <u></u> | Feet of Water <u></u> |
| Sample ID <u>86-S1-009</u> | Depth of Bottom of Tubing <u></u> | |
| Duplicate ID <u>N/A</u> | Depth to Water (w/ Tubing in Well) <u>3.56</u> | |

PURGING

| Time | Discharge Rate ¹ (L/min) | Dissolved Oxygen (mg/L) | pH | Eh/ORP (mV) | Temp. (°C) | Specific Conduct. (µmhos/cm at °C) | Turbidity (NTU) | Cumulative Volume of Water Removed/Purged (Gallons) | PID/OVA Reading | | Depth to Water ² (ft) | Comments |
|------|-------------------------------------|-------------------------|------|-------------|------------|------------------------------------|-----------------|-----------------------------------------------------|-----------------|-------|----------------------------------|----------|
| | | | | | | | | | Location | Value | | |
| 0742 | .4 | 2.27 | 6.10 | 4 | 16.25 | 31391 | 95.6 | .2 | | | 3.58 | |
| 0745 | .4 | 1.02 | 6.21 | -14 | 16.42 | 30270 | 47.8 | .4 | | | 3.60 | |
| 0748 | .4 | 0.52 | 6.29 | -21 | 16.67 | 28720 | 31.3 | .6 | | | 3.64 | |
| 0751 | .4 | 0.76 | 6.39 | -30 | 16.91 | 26292 | 20.8 | .8 | | | 3.68 | |
| 0754 | .4 | 0.68 | 6.43 | -29 | 16.9 | 29468 | 16.9 | 1 | | | 3.70 | |
| 0757 | .4 | 0.63 | 6.47 | -27 | 17.34 | 26658 | 17.37 | 1.2 | | | 3.74 | |
| 0800 | Collect Sample | | | | | | | | | | | |
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Notes:

- Purge rate = 0.2 - 0.5 L/minute
- Drawdown shall be <0.33 foot

SAMPLE PARAMETERS

| | | | | | | | |
|----------|-----------|----------|----------|--------------|---------------|--|--|
| 3x VOC's | 2x SVOC's | 2x Pest. | 2x PCB's | 1x D. Metals | 1x D. Mercury | | |
|----------|-----------|----------|----------|--------------|---------------|--|--|

SAMPLE RATE

| | | | | | | | |
|-----------|----|----|----|----|----|----|--|
| 0.1 L/min | .4 | .4 | .4 | .4 | .4 | .4 | |
|-----------|----|----|----|----|----|----|--|

Notes:

- Sample rate for VOC's analysis = 0.1 - 0.2 L/minute
- Sample rate for non-VOC's analysis = purge rate = 0.2 - 0.5 L/minute

Condition of Well: GoodRemarks: VOC's samples effervesced

FIELD EQUIPMENT

pH Meter HYDROLAB
 Temperature Meter HYDROLAB
 Turbidity Meter HYDROLAB
 Spec. Elec. Cond. Meter HYDROLAB
 ORP Meter HYDROLAB
 D.O. Meter HYDROLAB
 Interface Probe SOLINST
 PID/OVA MINI-RAE
 Pump GEO-PUMP
 Filter Apparatus GEO-.45 MICRON

Serial Number #38520
 Serial Number #38520
 Serial Number #38520
 Serial Number #38520
 Serial Number #38520
 Serial Number #38520
 Serial Number #25582
 Serial Number #00320
 Serial Number #01689

Number of Bottles 11Field Notebook Pg. 10Sample Method Low FlowDischarge Water Containerized ☒ Yes ☐ No

| | | |
|-------------------------------------------------------|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| Well Name <u>W1-23</u> | Screen Interval <u>N/A</u> | |
| Project <u>CTO 86-Site 1, 2nd Quarter</u> | Station Elevation <u> </u> GND <u> </u> TOC <u> </u> | Immiscible Phases Present <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Project No. <u>1990.086E</u> | Static Water Level (from TOC) / Time <u>5.35/1153</u> <u>5.35/1154</u> <u>5.35/1155</u> | |
| Well Location <u>Moffett- Site 1</u> | Average Water Level (from TOC) <u>5.35</u> | |
| Sample Date <u> </u> | Reference Point <u>TOC</u> | PID Readings (background) <u>Oppm</u> |
| Sampling Personnel <u>D. HARRISON</u> | Reference Elevation <u> </u> | PID Reading (TOC) <u>Oppm</u> |
| <u>M. RAMOS</u> | Static Elevation <u> </u> | Notes <u> </u> |
| | Well Depth MEAS <u>5.92</u> RPTD <u> </u> | Feet of Water <u> </u> |
| Sample ID <u>86-S1-005</u> | Depth of Bottom of Tubing <u>5.80</u> | |
| Duplicate ID <u>N/A</u> | Depth to Water (w/ Tubing in Well) <u>5.35</u> | |

[illegible]

Notes:

1. Purge rate = 0.2 - 0.5 L/minute
2. Drawdown shall be <0.33 foot.

SAMPLE PARAMETERS

| | | | | | | | |
|----|--|--|--|--|--|--|--|
| NA | | | | | | | |
|----|--|--|--|--|--|--|--|

SAMPLE RATE

| | | | | | | | |
|----|--|--|--|--|--|--|--|
| NA | | | | | | | |
|----|--|--|--|--|--|--|--|

Notes:

1. Sample rate for VOCs analysis = 0.1 - 0.2 L/minute
2. Sample rate for non-VOCs analysis = purge rate = 0.2 - 0.5 L/minute

Condition of Well: Good

Remarks: Trench ran dry @ 1258

FIELD EQUIPMENT

| | | | | | |
|-------------------------|---------------|---------------|--------|-------------------------------|---------------------------------------------------------------------|
| pH Meter | HYDROLAB | Serial Number | #38520 | Number of Bottles | 0 |
| Temperature Meter | HYDROLAB | Serial Number | #38520 | | |
| Turbidity Meter | HYDROLAB | Serial Number | #38520 | | |
| Spec. Elec. Cond. Meter | HYDROLAB | Serial Number | #38520 | Field Notebook | pg. 8 |
| ORP Meter | HYDROLAB | Serial Number | #38520 | | |
| D.O. Meter | HYDROLAB | Serial Number | #38520 | Sample Method | Low Flow |
| Interface Probe | SOLINST | Serial Number | #25582 | | |
| PID/OVA | MINI-RAE | Serial Number | #00320 | | |
| Pump | GEO-PUMP | Serial Number | #01689 | | |
| Filter Apparatus | GEO-45 MICRON | | | Discharge Water Containerized | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |



TETRA TECH FW, INC.

LOW-FLOW GROUNDWATER SAMPLING DATA SHEET

Page 1 of 1Date 5/24/04

| | | | |
|-------------------------------------------|-----------------------------------------------------------------------------------------|---------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| Well Name <u>W1-24</u> | Screen Interval <u>6-16</u> | Station Elevation <u> </u> GND <u> </u> TOC <u> </u> | Immiscible Phases Present <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Project <u>CTO 86-Site 1, 2nd Quarter</u> | Static Water Level (from TOC) / Time <u>6.95/1223</u> <u>6.95/1224</u> <u>6.95/1225</u> | | |
| Project No. <u>1990.086E</u> | Average Water Level (from TOC) <u>6.95</u> | | |
| Well Location <u>Moffett- Site 1</u> | Reference Point <u>TOC</u> | PID Readings (background) <u>0ppm</u> | |
| Sample Date <u>5/24/04</u> | Reference Elevation <u> </u> | PID Reading (TOC) <u>0ppm</u> | |
| Sampling Personnel <u>D. HARRISON</u> | Static Elevation <u> </u> | Notes <u> </u> | |
| <u>M. RAMOS</u> | Well Depth MEAS <u>20.24</u> RPTD <u> </u> | Feet of Water <u> </u> | |
| Sample ID <u>86-S1-012</u> | Depth of Bottom of Tubing <u>11</u> | | |
| Duplicate ID <u>N/A</u> | Depth to Water (w/ Tubing in Well) <u>6.97</u> | | |

PURGING

| Time | Discharge Rate ¹ (L/min) | Dissolved Oxygen (mg/L) | pH | Eh/ORP (mV) | Temp. (°C) | Specific Conduct. (µmhos/cm at °C) | Turbidity (NTU) | Cumulative Volume of Water Removed/Purged (Gallons) | PID/OVA Reading | | Depth to Water ² (ft) | Comments |
|------|-------------------------------------|-------------------------|------|-------------|------------|------------------------------------|-----------------|-----------------------------------------------------|-----------------|-------|----------------------------------|----------|
| | | | | | | | | | Location | Value | | |
| 1310 | .4 | 1.05 | 6.75 | 60 | 25.40 | 218219 | 11.1 | 1.2 | | | 7.00 | |
| 1313 | .4 | 0.70 | 6.71 | 4 | 24.62 | 49917 | 15.1 | .4 | | | 7.04 | |
| 1316 | .4 | 0.39 | 6.70 | -7 | 24.70 | 49160 | 18.8 | .4 | | | 7.05 | |
| 1319 | .4 | 0.37 | 6.68 | -11 | 24.02 | 48350 | 25.9 | .8 | | | 7.08 | |
| 1322 | .4 | 0.34 | 6.65 | -5 | 23.86 | 48261 | 23.9 | 1 | | | 7.10 | |
| 1325 | .4 | 0.33 | 6.63 | 4 | 23.59 | 49789 | 17.1 | 1.2 | | | 7.11 | |
| | Collect Sample | | | | | | | | | | | |
| | | | | | | | | | | | | |
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Notes:

- Purge rate = 0.2 - 0.5 L/minute
- Drawdown shall be <0.33 foot

SAMPLE PARAMETERS

| | | | | | | | |
|---------|----------|----------|---------|------------|-----------------------------|--|--|
| 3x VOCs | 2x SVOCs | 2x Pest. | 2x PCBs | 1x D. MTHS | 1x D. Met. H ₂ O | | |
|---------|----------|----------|---------|------------|-----------------------------|--|--|

SAMPLE RATE

| | | | | | | | |
|----------|----|----|----|----|----|--|--|
| .1 L/min | .4 | .4 | .4 | .4 | .4 | | |
|----------|----|----|----|----|----|--|--|

Notes:

- Sample rate for VOCs analysis = 0.1 - 0.2 L/minute
- Sample rate for non-VOCs analysis = purge rate = 0.2 - 0.5 L/minute

Condition of Well: GoodRemarks: VOC samples effervesced

FIELD EQUIPMENT

| | | |
|-----------------------------------------|-----------------------------|---------------------------------------------------------------------------------------------------|
| pH Meter <u>HYDROLAB</u> | Serial Number <u>#38520</u> | Number of Bottles <u>11</u> |
| Temperature Meter <u>HYDROLAB</u> | Serial Number <u>#38520</u> | |
| Turbidity Meter <u>HYDROLAB</u> | Serial Number <u>#38520</u> | |
| Spec. Elec. Cond. Meter <u>HYDROLAB</u> | Serial Number <u>#38520</u> | Field Notebook <u>Pg 13</u> |
| ORP Meter <u>HYDROLAB</u> | Serial Number <u>#38520</u> | |
| D.O. Meter <u>HYDROLAB</u> | Serial Number <u>#38520</u> | Sample Method <u>Low Flow</u> |
| Interface Probe <u>SOLINST</u> | Serial Number <u>#25582</u> | |
| PID/OVA <u>MINI-RAE</u> | Serial Number <u>#00320</u> | |
| Pump <u>GEO-PUMP</u> | Serial Number <u>#01689</u> | |
| Filter Apparatus <u>GEO-45 MICRON</u> | | Discharge Water Containerized <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |

NOVEMBER 2004



TETRA TECH FW, INC.

LOW-FLOW GROUNDWATER SAMPLING DATA SHEET

Page 1 of 1Date 11/8/04Well Name W1-1RScreen Interval 14.3-24.3Project CTO 86-Site 1.Station Elevation GND TOC Immiscible Phases Present ☐ Yes ☒ NoProject No. 1990.086EStatic Water Level (from TOC) / Time 8.30/0839 8.30/0840 8.30/0841Well Location Moffett- Site 1Average Water Level (from TOC) 8.30Sample Date 11/8/04Reference Point TOCPID Readings (background) OppuSampling Personnel D. HARRISONReference Elevation PID Reading (TOC) OppuM. RAMOSStatic Elevation Notes Well Depth MEAS 27.45 RPTD Feet of Water Sample ID 86-S1-056Depth of Bottom of Tubing 19.3Duplicate ID N/ADepth to Water (w/ Tubing in Well) 8.30

PURGING

| Time | Discharge Rate ¹ (L/min) | Dissolved Oxygen (mg/L) | pH | Eh/ORP (mV) | Temp. (°C) | Specific Conduct. (µmhos/cm at °C) | Turbidity (NTU) | Cumulative Volume of Water Removed/Purged (Gallons) | PID/OVA Reading | | Depth to Water ² (ft) | Comments |
|------|-------------------------------------|-------------------------|------|-------------|------------|------------------------------------|-----------------|-----------------------------------------------------|-----------------|-------|----------------------------------|----------|
| | | | | | | | | | Location | Value | | |
| 0858 | .4 | 0.42 | 6.58 | 321 | 15.74 | 99642 | 2.1 | .2 | | | 8.31 | |
| 0901 | .4 | 0.28 | 6.58 | 319 | 16.18 | 99905 | 1.9 | .4 | | | 8.32 | |
| 0904 | .4 | 0.25 | 6.57 | 318 | 16.14 | 98750 | 1.6 | .6 | | | 8.32 | |
| 0907 | .4 | 0.22 | 6.57 | 317 | 16.56 | 98760 | 1.3 | .8 | | | 8.32 | |
| 0910 | .4 | 0.21 | 6.56 | 317 | 16.66 | 98652 | 1.3 | 1.0 | | | 8.33 | |
| 0915 | Collect Sample | | | | | | | | | | | |
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Notes:

- Purge rate = 0.2 - 0.5 L/minute
- Drawdown shall be <0.33 foot

SAMPLE PARAMETERS

| | | | | | | | |
|------------------|----------|--------|--------|-----------|------------|--|--|
| 3x 2xSVOCs VOC's | 2xSVOC's | 2xPCBs | 2xPEST | 1xD.MERC. | 1xD.Metals | | |
|------------------|----------|--------|--------|-----------|------------|--|--|

SAMPLE RATE

| | | | | | | | |
|----------|----------|----------|----------|----------|----------|--|--|
| .1 L/min | .4 L/min | .4 L/min | .4 L/min | .4 L/min | .4 L/min | | |
|----------|----------|----------|----------|----------|----------|--|--|

Notes:

- Sample rate for VOCs analysis = 0.1 - 0.2 L/minute
- Sample rate for non-VOCs analysis = purge rate = 0.2 - 0.5 L/minute

Condition of Well: Good - Needs to be paintedRemarks: VOL Samples offered

FIELD EQUIPMENT

pH Meter HYDROLABSerial Number #R41041Number of Bottles 2x1LA 3x 40.1LVTemperature Meter HYDROLABSerial Number #R410416X1LATurbidity Meter HYDROLABSerial Number #R410411X1LPSpec. Elec. Cond. Meter HYDROLABSerial Number #R410411X250mLPORP Meter HYDROLABSerial Number #R41041Field Notebook Pg. 43D.O. Meter HYDROLABSerial Number #R41041Sample Method Low FlowInterface Probe SOLINSTSerial Number #25582PID/OVA MINI-RAESerial Number #00320Pump GEO-PUMPSerial Number BA0041Filter Apparatus GEO-45 MICRONDischarge Water Containerized ☒ Yes ☐ No



TETRA TECH FW, INC.

LOW-FLOW GROUNDWATER
SAMPLING DATA SHEETPage 1 of 1Date 11/8/04Well Name W1-5Project CTO 86-Site 1Project No. 1990.086EWell Location Moffett - Site 1Sample Date 11/9/04Sampling Personnel D. HARRISONM. RAMOSSample ID 86-S1-063Duplicate ID 86-S1-064Screen Interval 14.5-19.5Station Elevation GND TOC Immiscible Phases Present ☐ Yes ☒ NoStatic Water Level (from TOC) / Time 5.82/0813 5.82/0814 5.82/0815Average Water Level (from TOC) 5.82Reference Point TOC PID Readings (background) OppmReference Elevation PID Reading (TOC) OppmStatic Elevation Notes Well Depth MEAS 21.33 RPTD Feet of Water Depth of Bottom of Tubing 17Depth to Water (w/ Tubing in Well) 5.82

PURGING

| Time | Discharge Rate ¹ (L/min) | Dissolved Oxygen (mg/L) | pH | EH/ORP (mV) | Temp. (°C) | Specific Conduct. (µmhos/cm at °C) | Turbidity (NTU) | Cumulative Volume of Water Removed/Purged (Gallons) | PID/OVA Reading | | Depth to Water ² (ft) | Comments |
|------|----------------------------------------|----------------------------|------|----------------|---------------|---------------------------------------|--------------------|--------------------------------------------------------|-----------------|-------|----------------------------------|----------|
| | | | | | | | | | Location | Value | | |
| 1343 | .4 | 0.143 | 6.54 | 183 | 18.20 | 84245 | 1.8 | .2 | | | 5.84 | |
| 1346 | .4 | 0.29 | 6.53 | 175 | 18.18 | 84224 | 1.0 | .4 | | | 5.86 | |
| 1349 | .4 | 0.25 | 6.54 | 170 | 18.15 | 84144 | 0.9 | .6 | | | 5.87 | |
| 1352 | .4 | 0.22 | 6.54 | 165 | 18.36 | 83695 | 0.7 | .8 | | | 5.89 | |
| 1355 | .4 | 0.21 | 6.54 | 162 | 18.36 | 83652 | 0.7 | 1.0 | | | 5.89 | |
| 1358 | .4 | 0.20 | 6.54 | 161 | 18.34 | 83521 | 0.2 | 1.2 | | | 5.89 | |
| 1400 | Collect | Sample | | | | | | | | | | |
| 1415 | Collect | Field Duplicate | | | | | | | | | | |
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Notes:

1. Purge rate = 0.2 - 0.5 L/minute

2. Drawdown shall be <0.33 foot

SAMPLE PARAMETERS

| 3xVOCs | 4xSVOC's | 4xPCBs | 4xPEST | 2xD.MERC. | 2xD.Metals | | |
|--------|----------|--------|--------|-----------|------------|--|--|
|--------|----------|--------|--------|-----------|------------|--|--|

SAMPLE RATE

| | | | | | | | |
|----------|----------|----------|----------|----------|----------|--|--|
| .4 L/min | .4 L/min | .4 L/min | .4 L/min | .4 L/min | .4 L/min | | |
|----------|----------|----------|----------|----------|----------|--|--|

Notes:

1. Sample rate for VOCs analysis = 0.1 - 0.2 L/minute

2. Sample rate for non-VOCs analysis = purge rate = 0.2 - 0.5 L/minute

Condition of Well: GoodRemarks: Slight H2S odor. VOC samples effervesced. Metals + Merc. Field filtered.

FIELD EQUIPMENT

pH Meter HYDROLABTemperature Meter HYDROLABTurbidity Meter HYDROLABSpec. Elec. Cond. Meter HYDROLABORP Meter HYDROLABD.O. Meter HYDROLABInterface Probe SOLINSTPID/OVA MINI-RAEPump GEO-PUMPFilter Apparatus GEO-.45 MICRONSerial Number #R41041Serial Number #R41041Serial Number #R41041Serial Number #R41041Serial Number #R41041Serial Number #R41041Serial Number #25582Serial Number #00320Serial Number BA0041Number of Bottles 6X40mLV121LA2X1LP2X250mLPField Notebook Pgs. 49 + 50Sample Method Low FlowDischarge Water Containerized ☒ Yes ☐ No

LOW-FLOW GROUNDWATER SAMPLING DATA SHEET

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Date 11/8/04

Well Name W1-8

Project CTO 86-Site 1

Project No. 1990.086E

Well Location Moffett Site 1

Sample Date 11/10/04

Sampling Personnel D. HARRISON

M. RAMOS

Screen Interval 13-18

Station Elevation GND TOC Immiscible Phases Present ☐ Yes ☒ No

Static Water Level (from TOC) / Time 5.90/0818 5.90/0819 5.90/0820

Average Water Level (from TOC) 5.90

Reference Point TOC PID Readings (background) 0ppm

Reference Elevation PID Reading (TOC) 0ppm

Static Elevation Notes

Well Depth MEAS 22.67 RPTD Feet of Water

Depth of Bottom of Tubing 15.5

Depth to Water (w/ Tubing in Well) 5.90

Sample ID 86-S1-065

Duplicate ID 86-S1-066

PURGING

| Time | Discharge Rate ¹ (L/min) | Dissolved Oxygen (mg/L) | pH | Eh/ORP (mV) | Temp. (°C) | Specific Conduct. (µmhos/cm at °C) | Turbidity (NTU) | Cumulative Volume of Water Removed/Purged (Gallons) | PID/OVA Reading | | Depth to Water ² (ft) | Comments |
|------|-------------------------------------|-------------------------|-----|-------------|------------|------------------------------------|-----------------|-----------------------------------------------------|-----------------|-------|----------------------------------|----------|
| | | | | | | | | | Location | Value | | |
| 0740 | .4 | 0.47 | 6.6 | 226 | 13.5 | 93960 | 1.08 | .2 | | | 5.94 | |
| 0743 | .4 | 0.31 | 6.6 | 218 | 13.7 | 93594 | 0.8 | .4 | | | 5.96 | |
| 0746 | .4 | 0.23 | 6.6 | 208 | 14.1 | 92821 | 0.5 | .6 | | | 5.97 | |
| 0749 | .4 | 0.22 | 6.6 | 201 | 14.4 | 92324 | 0.4 | .8 | | | 5.97 | |
| 0752 | .4 | 0.21 | 6.6 | 196 | 14.6 | 92057 | 0.4 | 1.0 | | | 5.98 | |
| 0755 | Collect | Sample | #65 | 14.7 | | | | | | | | |
| 0810 | Collect | Field Duplicate | #66 | | | | | | | | | |
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Notes:

1. Purge rate = 0.2 - 0.5 L/minute
2. Drawdown shall be <0.33 foot

SAMPLE PARAMETERS

| | | | | | | | |
|--------|----------|--------|--------|-----------|------------|--|--|
| 6xVOCs | 4xSVOC's | 4xPCBs | 4xPEST | 2xD.MERC. | 2xD.Metals | | |
|--------|----------|--------|--------|-----------|------------|--|--|

SAMPLE RATE

| | | | | | | | |
|----------|----------|----------|----------|----------|----------|--|--|
| .1 L/min | .4 L/min | .4 L/min | .4 L/min | .4 L/min | .4 L/min | | |
|----------|----------|----------|----------|----------|----------|--|--|

Notes:

1. Sample rate for VOCs analysis = 0.1 - 0.2 L/minute
2. Sample rate for non-VOCs analysis = purge rate = 0.2 - 0.5 L/minute

Condition of Well: Good

Remarks: VOC samples effervesced. Metals + Merc. were field filtered

FIELD EQUIPMENT

pH Meter HYDROLAB
 Temperature Meter HYDROLAB
 Turbidity Meter HYDROLAB
 Spec. Elec. Cond. Meter HYDROLAB
 ORP Meter HYDROLAB
 D.O. Meter HYDROLAB
 Interface Probe SOLINST
 PID/OVA MINI-RAE
 Pump GEO-PUMP
 Filter Apparatus GEO-45 MICRON

Serial Number #R41041
 Serial Number #R41041
 Serial Number #R41041
 Serial Number #R41041
 Serial Number #R41041
 Serial Number #R41041
 Serial Number #25582
 Serial Number #00320
 Serial Number BA0041

Number of Bottles 6X40mLV
121LA
2X1LP
2X250mLP
 Field Notebook Pgs 51 + 52
 Sample Method Low Flow

Discharge Water Containerized ☒ Yes ☐ No



TETRA TECH FW, INC.

LOW-FLOW GROUNDWATER SAMPLING DATA SHEET

Page 1 of 1Date 11/8/04

| | |
|---------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| Well Name <u>W1-12R</u> | Screen Interval <u>15-25</u> |
| Project <u>CTO 86-Site 1</u> | Station Elevation <u>GND</u> TOC <u> </u> Immiscible Phases Present <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Project No. <u>1990.086E</u> | Static Water Level (from TOC) / Time <u>3.09/0801</u> <u>3.09/0801</u> <u>3.09/0801</u> |
| Well Location <u>Moffett - Site 1</u> | Average Water Level (from TOC) <u>3.09</u> |
| Sample Date <u>11/9/04</u> | Reference Point <u>TOC</u> PID Readings (background) <u>0ppm</u> |
| Sampling Personnel <u>D. HARRISON</u> | Reference Elevation <u> </u> PID Reading (TOC) <u>0ppm</u> |
| <u>M. RAMOS</u> | Static Elevation <u> </u> Notes <u> </u> |
| | Well Depth MEAS <u>25.66</u> RPTD <u> </u> Feet of Water <u> </u> |
| Sample ID <u>86-S1-061</u> | Depth of Bottom of Tubing <u>20</u> |
| Duplicate ID <u>N/A</u> | Depth to Water (w/ Tubing in Well) <u>3.09</u> |

PURGING

| Time | Discharge Rate ¹ (L/min) | Dissolved Oxygen (mg/L) | pH | Eh/ORP (mV) | Temp. (°C) | Specific Conduct. (µmhos/cm at °C) | Turbidity (NTU) | Cumulative Volume of Water Removed/Purged (Gallons) | PID/OVA Reading | | Depth to Water ² (ft) | Comments |
|------|-------------------------------------|-------------------------|------|-------------|------------|------------------------------------|-----------------|-----------------------------------------------------|-----------------|-------|----------------------------------|----------|
| | | | | | | | | | Location | Value | | |
| 0900 | .4 | 0.75 | 6.55 | 360 | 15.89 | 92495 | 7.5 | .2 | | | 3.12 | |
| 0903 | .4 | 0.43 | 6.57 | 389 | 16.23 | 92728 | 5.7 | .4 | | | 3.13 | |
| 0906 | .4 | 0.36 | 6.57 | 344 | 16.47 | 92152 | 4.0 | .6 | | | 3.14 | |
| 0909 | .4 | 0.26 | 6.58 | 339 | 16.76 | 94602 | 3.3 | .8 | | | 3.14 | |
| 0912 | .4 | 0.20 | 6.58 | 337 | 16.79 | 92170 | 2.4 | 1.0 | | | 3.14 | |
| 0915 | .4 | 0.20 | 6.58 | 333 | 16.88 | 94767 | 1.9 | 1.2 | | | 3.14 | |
| 0918 | .4 | 0.19 | 6.58 | 330 | 17.01 | 92662 | 1.3 | 1.4 | | | 3.14 | |
| 0920 | Collect Sample | | | | | | | | | | | |
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Notes:

1. Purge rate = 0.2 - 0.5 L/minute

2. Drawdown shall be <0.33 foot

SAMPLE PARAMETERS

| | | | | | | | |
|--------|----------|--------|--------|-----------|------------|--|--|
| 3XVOCs | 2xSVOC's | 2xPCBs | 2xPEST | 1xD.MERC. | 1xD.Metals | | |
|--------|----------|--------|--------|-----------|------------|--|--|

SAMPLE RATE

| | | | | | | | |
|----------|----------|----------|----------|----------|----------|--|--|
| .1 L/min | .4 L/min | .4 L/min | .4 L/min | .4 L/min | .4 L/min | | |
|----------|----------|----------|----------|----------|----------|--|--|

Notes:

1. Sample rate for VOCs analysis = 0.1 - 0.2 L/minute

2. Sample rate for non-VOCs analysis = purge rate = 0.2 - 0.5 L/minute

Condition of Well: GoodRemarks: Black/Turbid/Strong H₂S odor. VOC samples effervescence. Metals + Merc. were field filtered

FIELD EQUIPMENT

| | | |
|-----------------------------------------|------------------------------|---------------------------------------------------------------------------------------------------|
| pH Meter <u>HYDROLAB</u> | Serial Number <u>#R41041</u> | Number of Bottles <u>3x40mLV</u> |
| Temperature Meter <u>HYDROLAB</u> | Serial Number <u>#R41041</u> | <u>6X1LA</u> |
| Turbidity Meter <u>HYDROLAB</u> | Serial Number <u>#R41041</u> | <u>1X1LP</u> |
| Spec. Elec. Cond. Meter <u>HYDROLAB</u> | Serial Number <u>#R41041</u> | <u>1X250mLP</u> |
| ORP Meter <u>HYDROLAB</u> | Serial Number <u>#R41041</u> | Field Notebook <u>Pg. 47</u> |
| D.O. Meter <u>HYDROLAB</u> | Serial Number <u>#R41041</u> | Sample Method <u>Low Flow</u> |
| Interface Probe <u>SOLINST</u> | Serial Number <u>#25582</u> | |
| PID/OVA <u>MINI-RAE</u> | Serial Number <u>#00320</u> | |
| Pump <u>GEO-PUMP</u> | Serial Number <u>BA0041</u> | |
| Filter Apparatus <u>GEO-.45 MICRON</u> | | Discharge Water Containerized <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |



TETRA TECH FW, INC.

LOW-FLOW GROUNDWATER
SAMPLING DATA SHEETPage 1 of 1Date 11/8/04

| | | | |
|---------------------------------------|-----------------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------------------------------------------------------------------------|
| Well Name <u>W1-14</u> | Screen Interval <u>4.1-14.1</u> | Station Elevation <u>GND</u> TOC <u> </u> | Immiscible Phases Present <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Project <u>CTO 86-Site 1</u> | Static Water Level (from TOC) / Time <u>5.86/0748</u> <u>5.86/0749</u> <u>5.86/0750</u> | | |
| Project No. <u>1990.086E</u> | Average Water Level (from TOC) <u>5.86</u> | | |
| Well Location <u>Moffett- Site 1</u> | Reference Point <u>TOC</u> | PID Readings (background) <u>0ppm</u> | |
| Sample Date <u>11/9/04</u> | Reference Elevation <u> </u> | PID Reading (TOC) <u>0ppm</u> | |
| Sampling Personnel <u>D. HARRISON</u> | Static Elevation <u> </u> | Notes <u> </u> | |
| <u>M. RAMOS</u> | Well Depth MEAS <u>17.67</u> RPTD <u> </u> | Feet of Water <u> </u> | |
| Sample ID <u>86-S1-060</u> | Depth of Bottom of Tubing <u>9.1</u> | | |
| Duplicate ID <u>N/A</u> | Depth to Water (w/ Tubing in Well) <u>5.86</u> | | |

PURGING

| Time | Discharge Rate ¹ (L/min) | Dissolved Oxygen (mg/L) | pH | Eh/ORP (mV) | Temp. (°C) | Specific Conduct. (µmhos/cm at °C) | Turbidity (NTU) | Cumulative Volume of Water Removed/Purged (Gallons) | PID/OVA Reading | | Depth to Water ² (ft) | Comments |
|------|----------------------------------------|----------------------------|------|----------------|---------------|---------------------------------------|--------------------|--------------------------------------------------------|-----------------|-------|----------------------------------|----------|
| | | | | | | | | | Location | Value | | |
| 0748 | .4 | 0.95 | 6.66 | 260 | 14.04 | 63852 | 13.1 | .2 | | | 5.88 | |
| 0748 | .4 | 0.55 | 6.66 | 239 | 14.16 | 65569 | 7.5 | .4 | | | 5.91 | |
| 0751 | .4 | 0.39 | 6.65 | 224 | 14.41 | 63174 | 6.5 | .6 | | | 5.92 | |
| 0754 | .4 | 0.32 | 6.65 | 233 | 14.62 | 66290 | 4.2 | .7 | | | 5.94 | |
| 0757 | .4 | 0.29 | 6.63 | 247 | 14.81 | 64146 | 3.6 | .9 | | | 5.96 | |
| 0800 | .4 | 0.29 | 6.62 | 246 | 15.10 | 64645 | 3.1 | 1.1 | | | | |
| 0805 | Collect Sample | | | | | | | | | | | |
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Notes:

1. Purge rate = 0.2 - 0.5 L/minute

2. Drawdown shall be <0.33 foot

SAMPLE PARAMETERS

| | | | | | | | |
|---------|----------|--------|--------|-----------|------------|--|--|
| 2xSVOCs | 2xSVOC's | 2xPCBs | 2xPEST | 1xD.MERC. | 1xD.Metals | | |
|---------|----------|--------|--------|-----------|------------|--|--|

SAMPLE RATE

| | | | | | | | |
|----------|----------|----------|----------|----------|----------|--|--|
| .1 L/min | .4 L/min | .4 L/min | .4 L/min | .4 L/min | .4 L/min | | |
|----------|----------|----------|----------|----------|----------|--|--|

Notes:

1. Sample rate for VOCs analysis = 0.1 - 0.2 L/minute

2. Sample rate for non-VOCs analysis = purge rate = 0.2 - 0.5 L/minute

Condition of Well: Good.Remarks: VOC samples effervesced. Metals + Merc. were field filtered.

FIELD EQUIPMENT

| | | |
|-----------------------------------------|------------------------------|---------------------------------------------------------------------------------------------------|
| pH Meter <u>HYDROLAB</u> | Serial Number <u>#R41041</u> | Number of Bottles <u>2x1LA 3x40mLV</u> |
| Temperature Meter <u>HYDROLAB</u> | Serial Number <u>#R41041</u> | <u>6X1LA</u> |
| Turbidity Meter <u>HYDROLAB</u> | Serial Number <u>#R41041</u> | <u>1X1LP</u> |
| Spec. Elec. Cond. Meter <u>HYDROLAB</u> | Serial Number <u>#R41041</u> | <u>1X250mLP</u> |
| ORP Meter <u>HYDROLAB</u> | Serial Number <u>#R41041</u> | Field Notebook <u>Pg. 46</u> |
| D.O. Meter <u>HYDROLAB</u> | Serial Number <u>#R41041</u> | Sample Method <u>Low Flow</u> |
| Interface Probe <u>SOLINST</u> | Serial Number <u>#25582</u> | |
| PID/OVA <u>MINI-RAE</u> | Serial Number <u>#00320</u> | |
| Pump <u>GEO-PUMP</u> | Serial Number <u>BA0041</u> | |
| Filter Apparatus <u>GEO-45 MICRON</u> | | Discharge Water Containerized <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |



TETRA TECH FW, INC.

LOW-FLOW GROUNDWATER
SAMPLING DATA SHEETPage 1 of 1Date 11/8/04

| | | | |
|---------------------------------------|-----------------------------------------------------------------------------------------|--------------------------------------------------|-----------------------------------------------------------------------------------------------|
| Well Name <u>W1-15</u> | Screen Interval <u>4.4-14.4</u> | Station Elevation <u>GND</u> TOC <u> </u> | Immiscible Phases Present <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Project <u>CTO 86-Site 1</u> | Static Water Level (from TOC) / Time <u>6.38/0724</u> <u>6.38/0725</u> <u>6.38/0726</u> | | |
| Project No. <u>1990.086E</u> | Average Water Level (from TOC) <u>6.38</u> | | |
| Well Location <u>Moffett- Site 1</u> | Reference Point <u>TOC</u> | PID Readings (background) <u>0ppm</u> | |
| Sample Date <u>11/8/04</u> | Reference Elevation <u> </u> | PID Reading (TOC) <u>0ppm</u> | |
| Sampling Personnel <u>D. HARRISON</u> | Static Elevation <u>17.74</u> | Notes <u> </u> | |
| <u>M. RAMOS</u> | Well Depth MEAS <u>6.38</u> RPTD <u> </u> | Feet of Water <u> </u> | |
| Sample ID <u>86-S1-057</u> | Depth of Bottom of Tubing <u>9.4</u> | | |
| Duplicate ID <u>N/A</u> | Depth to Water (w/ Tubing in Well) <u>6.38</u> | | |

PURGING

| Time | Discharge Rate ¹ (L/min) | Dissolved Oxygen (mg/L) | pH | Eh/ORP (mV) | Temp. (°C) | Specific Conduct. (µmhos/cm at °C) | Turbidity (NTU) | Cumulative Volume of Water Removed/Purged (Gallons) | PID/OVA Reading | | Depth to Water ² (ft) | Comments |
|------|-------------------------------------|-------------------------|------|-------------|------------|------------------------------------|-----------------|-----------------------------------------------------|-----------------|-------|----------------------------------|----------|
| | | | | | | | | | Location | Value | | |
| 0957 | .4 | 0.55 | 6.54 | 230 | 16.73 | 98960 | 3.2 | .2 | | | 6.40 | |
| 1000 | .4 | 0.42 | 6.54 | 227 | 16.57 | 97424 | 1.9 | .4 | | | 6.41 | |
| 1003 | .4 | 0.32 | 6.55 | 225 | 16.72 | 96996 | 0.2 | .4 | | | 6.42 | |
| 1006 | .4 | 0.26 | 6.55 | 222 | 16.87 | 97116 | 0.2 | .8 | | | 6.43 | |
| 1009 | .4 | 0.23 | 6.55 | 219 | 17.05 | 96029 | 0.4 | 1.0 | | | 6.43 | |
| 1015 | Collect Sample | | | | | | | | | | | |
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Notes:

1. Purge rate = 0.2 - 0.5 L/minute

2. Drawdown shall be <0.33 foot

SAMPLE PARAMETERS

| 2XSVOCs | 2xSVOC's | 2xPCBs | 2xPEST | 1xD.MERC. | 1xD.Metals | | |
|---------|----------|--------|--------|-----------|------------|--|--|
|---------|----------|--------|--------|-----------|------------|--|--|

SAMPLE RATE

| | | | | | | | |
|------------------|-----------------|-----------------|-----------------|-----------------|-----------------|--|--|
| <u>0.1 L/min</u> | <u>.4 L/min</u> | <u>.4 L/min</u> | <u>.4 L/min</u> | <u>.4 L/min</u> | <u>.4 L/min</u> | | |
|------------------|-----------------|-----------------|-----------------|-----------------|-----------------|--|--|

Notes:

1. Sample rate for VOCs analysis = 0.1 - 0.2 L/minute

2. Sample rate for non-VOCs analysis = purge rate = 0.2 - 0.5 L/minute

Condition of Well: GoodRemarks: VOC Samples effervescence. Metals + Merc. were field filtered.

FIELD EQUIPMENT

| | | |
|-----------------------------------------|------------------------------|---------------------------------------------------------------------------------------------------|
| pH Meter <u>HYDROLAB</u> | Serial Number <u>#R41041</u> | Number of Bottles <u>2X1LA</u> |
| Temperature Meter <u>HYDROLAB</u> | Serial Number <u>#R41041</u> | <u>6X1LA</u> |
| Turbidity Meter <u>HYDROLAB</u> | Serial Number <u>#R41041</u> | <u>1X1LP</u> |
| Spec. Elec. Cond. Meter <u>HYDROLAB</u> | Serial Number <u>#R41041</u> | <u>1X250mLP</u> |
| ORP Meter <u>HYDROLAB</u> | Serial Number <u>#R41041</u> | Field Notebook <u>Pgs. 43 + 44</u> |
| D.O. Meter <u>HYDROLAB</u> | Serial Number <u>#R41041</u> | Sample Method <u>Low Flow</u> |
| Interface Probe <u>SOLINST</u> | Serial Number <u>#25582</u> | |
| PID/OVA <u>MINI-RAE</u> | Serial Number <u>#00320</u> | |
| Pump <u>GEO-PUMP</u> | Serial Number <u>BA0041</u> | |
| Filter Apparatus <u>GEO-45 MICRON</u> | | Discharge Water Containerized <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |

LOW-FLOW GROUNDWATER SAMPLING DATA SHEET

Date 11/8/04

| | | | |
|---------------------------------------|-----------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| Well Name <u>W1-16</u> | Screen Interval <u>5.4-15.4</u> | Station Elevation <u> </u> GND <u> </u> TOC <u> </u> | Immiscible Phases Present <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Project <u>CTO 86-Site 1</u> | Static Water Level (from TOC) / Time <u>7.75/0833</u> <u>7.75/0834</u> <u>7.75/0835</u> | | |
| Project No. <u>1990.086E</u> | Average Water Level (from TOC) <u>7.75</u> | | |
| Well Location <u>Moffett- Site 1</u> | Reference Point <u>TOC</u> | PID Readings (background) <u>Oppm</u> | |
| Sample Date <u>11/10/69</u> | Reference Elevation <u> </u> | PID Reading (TOC) <u>Oppm</u> | |
| Sampling Personnel <u>D. HARRISON</u> | Static Elevation <u> </u> | Notes <u> </u> | |
| <u>M. RAMOS</u> | Well Depth MEAS <u>18.24</u> RPTD <u> </u> | Feet of Water <u> </u> | |
| Sample ID <u>86-S1-068</u> | Depth of Bottom of Tubing <u>10.4</u> | | |
| Duplicate ID <u>RUN MS/MSD</u> | Depth to Water (w/ Tubing in Well) <u>7.75</u> | | |

PURGING

[illegible]

Notes:

1. Purge rate = 0.2 - 0.5 L/minute
2. Drawdown shall be <0.33 foot.

SAMPLE PARAMETERS

| | | | | | | | |
|--------|----------|--------|--------|-----------|------------|--|--|
| 9xVOCs | 6xSVOC's | 6xPCBs | 6xPEST | 3xD.MERC. | 3xD.Metals | | |
|--------|----------|--------|--------|-----------|------------|--|--|

SAMPLE RATE

| | | | | | | | |
|-------|--------|--------|--------|--------|--------|--|--|
| .14/m | .4 c/m | .4 c/m | .4 c/m | .4 c/m | .4 c/m | | |
|-------|--------|--------|--------|--------|--------|--|--|

Notes:

1. Sample rate for VOCs analysis = 0.1 - 0.2 L/minute
2. Sample rate for non-VOCs analysis = purge rate = 0.2 - 0.5 L/minute

Condition of Well: Good

Remarks: Slight N2S odor

FIELD EQUIPMENT

| | | | | | |
|-------------------------|----------------|---------------|---------|-------------------------------|---------------------------------------------------------------------|
| pH Meter | HYDROLAB | Serial Number | #R41041 | Number of Bottles | 9X40mLV |
| Temperature Meter | HYDROLAB | Serial Number | #R41041 | | 18x1LA |
| Turbidity Meter | HYDROLAB | Serial Number | #R41041 | | 3X1LP |
| Spec. Elec. Cond. Meter | HYDROLAB | Serial Number | #R41041 | | 3X250mLP |
| ORP Meter | HYDROLAB | Serial Number | #R41041 | Field Notebook | Pg. 53 |
| D.O. Meter | HYDROLAB | Serial Number | #R41041 | | |
| Interface Probe | SOLINST | Serial Number | #25582 | Sample Method | Low Flow |
| PID/OVA | MINI-RAE | Serial Number | #00320 | | |
| Pump | GEO-PUMP | Serial Number | BA0041 | | |
| Filter Apparatus | GEO-.45 MICRON | | | Discharge Water Containerized | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |



TETRA TECH FW, INC.

LOW-FLOW GROUNDWATER
SAMPLING DATA SHEETPage 1 of 1Date 11/8/04

| | | | |
|---------------------------------------|-----------------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------------------------------------------------------------------------|
| Well Name <u>W1-19</u> | Screen Interval <u>14-19</u> | Station Elevation <u>GND</u> TOC <u> </u> | Immiscible Phases Present <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Project <u>CTO 86-Site 1</u> | Static Water Level (from TOC) / Time <u>5.40/0730</u> <u>5.40/0730</u> <u>5.40/0730</u> | | |
| Project No. <u>1990.086E</u> | Average Water Level (from TOC) <u>5.40</u> | | |
| Well Location <u>Moffett-Site 1</u> | Reference Point <u>TOC</u> | PID Readings (background) <u>Oppm</u> | |
| Sample Date <u>11/8/04</u> | Reference Elevation <u> </u> | PID Reading (TOC) <u>Oppm</u> | |
| Sampling Personnel <u>D. HARRISON</u> | Static Elevation <u> </u> | Notes <u> </u> | |
| <u>M. RAMOS</u> | Well Depth MEAS <u>21.20</u> RPTD <u> </u> | Feet of Water <u> </u> | |
| Sample ID <u>86-S1-058</u> | Depth of Bottom of Tubing <u>16.5</u> | | |
| Duplicate ID <u>N/A</u> | Depth to Water (w/ Tubing in Well) <u>5.40</u> | | |

PURGING

| Time | Discharge Rate ¹ (L/min) | Dissolved Oxygen (mg/L) | pH | Eh/ORP (mV) | Temp. (°C) | Specific Conduct. (µmhos/cm at °C) | Turbidity (NTU) | Cumulative Volume of Water Removed/Purged (Gallons) | PID/OVA Reading | | Depth to Water ² (ft) | Comments |
|------|-------------------------------------|-------------------------|------|-------------|------------|------------------------------------|-----------------|-----------------------------------------------------|-----------------|-------|----------------------------------|----------|
| | | | | | | | | | Location | Value | | |
| 1052 | .4 | 0.46 | 6.63 | 308 | 16.51 | 93998 | 1.0 | .2 | | | 5.43 | |
| 1055 | .4 | 0.28 | 6.63 | 294 | 16.72 | 92962 | 3.3 | .4 | | | 5.46 | |
| 1058 | .4 | 0.23 | 6.64 | 288 | 16.84 | 92570 | 2.2 | .6 | | | 5.47 | |
| 1101 | .4 | 0.19 | 6.64 | 283 | 17.08 | 91940 | 1.3 | .8 | | | 5.48 | |
| 1103 | .4 | 0.18 | 6.64 | 281 | 17.16 | 91937 | 0.6 | 1.0 | | | 5.50 | |
| 1106 | .4 | 0.18 | 6.64 | 280 | 17.21 | 91916 | 1.1 | 1.2 | | | 5.50 | |
| 1110 | Collect Sample | | | | | | | | | | | |
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Notes:

- Purge rate = 0.2 - 0.5 L/minute
- Drawdown shall be <0.33 foot

SAMPLE PARAMETERS

| | | | | | | | |
|-----------------------|----------|---------|---------|------------|--------------|--|--|
| 3x 2x VOCs | 2x VOC's | 2x PCBs | 2x PEST | 1x D.MERC. | 1x D. Metals | | |
|-----------------------|----------|---------|---------|------------|--------------|--|--|

SAMPLE RATE

| | | | | | | | |
|----------|----------|----------|----------|----------|----------|--|--|
| .1 L/min | .4 L/min | .4 L/min | .4 L/min | .4 L/min | .4 L/min | | |
|----------|----------|----------|----------|----------|----------|--|--|

Notes:

- Sample rate for VOCs analysis = 0.1 - 0.2 L/minute
- Sample rate for non-VOCs analysis = purge rate = 0.2 - 0.5 L/minute

Condition of Well: GoodRemarks: VOC samples after recsed. Metals + Merc. were field filtered

FIELD EQUIPMENT

| | | |
|-----------------------------------------|------------------------------|---------------------------------------------------------------------------------------------------|
| pH Meter <u>HYDROLAB</u> | Serial Number <u>#R41041</u> | Number of Bottles <u>2X1LA</u> |
| Temperature Meter <u>HYDROLAB</u> | Serial Number <u>#R41041</u> | <u>6X1LA</u> |
| Turbidity Meter <u>HYDROLAB</u> | Serial Number <u>#R41041</u> | <u>1X1LP</u> |
| Spec. Elec. Cond. Meter <u>HYDROLAB</u> | Serial Number <u>#R41041</u> | <u>1X250mLP</u> |
| ORP Meter <u>HYDROLAB</u> | Serial Number <u>#R41041</u> | Field Notebook <u>Pgs. 44 + 45</u> |
| D.O. Meter <u>HYDROLAB</u> | Serial Number <u>#R41041</u> | Sample Method <u>Low Flow</u> |
| Interface Probe <u>SOLINST</u> | Serial Number <u>#25582</u> | |
| PID/OVA <u>MINI-RAE</u> | Serial Number <u>#00320</u> | |
| Pump <u>GEO-PUMP</u> | Serial Number <u>BA0041</u> | |
| Filter Apparatus <u>GEO-45 MICRON</u> | | Discharge Water Containerized <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |



TETRA TECH FW, INC.

LOW-FLOW GROUNDWATER SAMPLING DATA SHEET

Page 1 of 1Date 11/8/04Well Name W1-22Project CTO 86-Site 1Project No. 1990.086EWell Location Moffett Site 1Sample Date 11/9/04Sampling Personnel D. HARRISONM. RAMOSScreen Interval N/AStation Elevation GND TOCStatic Water Level (from TOC) / Time 3.75/0804 3.75/0805 3.75/0806Average Water Level (from TOC) 3.75Reference Point TOC

Reference Elevation

Static Elevation

Well Depth MEAS 0.68 RPTDDepth of Bottom of Tubing 5.00Depth to Water (w/ Tubing in Well) 3.75Immiscible Phases Present ☐ Yes ☒ NoPID Readings (background) OppnPID Reading (TOC) Oppn

Notes

Feet of Water

Sample ID 86-S1-062Duplicate ID N/A

PURGING

| Time | Discharge Rate ¹ (L/min) | Dissolved Oxygen (mg/L) | pH | Eh/ORP (mV) | Temp. (°C) | Specific Conduct. (µmhos/cm at °C) | Turbidity (NTU) | Cumulative Volume of Water Removed/Purged (Gallons) | PID/OVA Reading | | Depth to Water ² (ft) | Comments |
|------|-------------------------------------|-------------------------|------|-------------|------------|------------------------------------|-----------------|-----------------------------------------------------|-----------------|-------|----------------------------------|----------|
| | | | | | | | | | Location | Value | | |
| 0955 | .4 | 0.52 | 6.46 | 231 | 18.07 | 60233 | 1.40 | .2 | | | 3.78 | |
| 0958 | .4 | 0.42 | 6.48 | 226 | 18.73 | 59670 | 25.6 | .4 | | | 3.83 | |
| 1001 | .4 | 0.31 | 6.49 | 221 | 19.52 | 57927 | 11.9 | .6 | | | 3.85 | |
| 1004 | .4 | 0.29 | 6.50 | 219 | 19.79 | 57383 | 16.4 | .8 | | | 3.89 | |
| 1007 | .4 | 0.27 | 6.50 | 217 | 20.25 | 57053 | 7.6 | 1.0 | | | 3.91 | |
| 1010 | .4 | 0.23 | 6.51 | 215 | 20.50 | 57042 | 6.9 | 1.2 | | | 3.93 | |
| 1015 | Collect Sample | | | | | | | | | | | |
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Notes:

1. Purge rate = 0.2 - 0.5 L/minute

2. Drawdown shall be <0.33 foot

SAMPLE PARAMETERS

| 3XVOCs | 2xSVOC's | 2xPCBs | 2xPEST | 1xD.MERC. | 1xD.Metals | | |
|--------|----------|--------|--------|-----------|------------|--|--|
|--------|----------|--------|--------|-----------|------------|--|--|

SAMPLE RATE

| | | | | | | | |
|----------|----------|----------|----------|----------|----------|--|--|
| .1 L/min | .4 L/min | .4 L/min | .4 L/min | .4 L/min | .4 L/min | | |
|----------|----------|----------|----------|----------|----------|--|--|

Notes:

1. Sample rate for VOCs analysis = 0.1 - 0.2 L/minute

2. Sample rate for non-VOCs analysis = purge rate = 0.2 - 0.5 L/minute

Condition of Well: GoodRemarks: Black/turbid water - H2S odor. VOC samples effervescence. Metals + Merc were field filtered.

FIELD EQUIPMENT

pH Meter HYDROLABSerial Number #R41041Number of Bottles 3x40mLVTemperature Meter HYDROLABSerial Number #R410416X1LATurbidity Meter HYDROLABSerial Number #R410411X1LPSpec. Elec. Cond. Meter HYDROLABSerial Number #R410411X250mLPORP Meter HYDROLABSerial Number #R41041Field Notebook Pg. 48D.O. Meter HYDROLABSerial Number #R41041Interface Probe SOLINSTSerial Number #25582Sample Method Low FlowPID/OVA MINI-RAESerial Number #00320Pump GEO-PUMPSerial Number BA0041Filter Apparatus GEO-45 MICRONDischarge Water Containerized ☒ Yes ☐ No



TETRA TECH FW, INC.

LOW-FLOW GROUNDWATER
SAMPLING DATA SHEETPage 1 of 1Date 11/8/04

| | | | |
|---------------------------------------|-----------------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------------------------------------------------------------------------|
| Well Name <u>W1-23</u> | Screen Interval <u>n/a</u> | Station Elevation <u>GND</u> TOC <u> </u> | Immiscible Phases Present <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Project <u>CTO 86-Site 1</u> | Static Water Level (from TOC) / Time <u>5.35/0754</u> <u>5.35/0755</u> <u>5.35/0756</u> | | |
| Project No. <u>1990.086E</u> | Average Water Level (from TOC) <u>5.35</u> | | |
| Well Location <u>Moffett- Site 1</u> | Reference Point <u>TOC</u> | PID Readings (background) <u>Open</u> | |
| Sample Date <u>N/A</u> | Reference Elevation <u> </u> | PID Reading (TOC) <u>Open</u> | |
| Sampling Personnel <u>D. HARRISON</u> | Static Elevation <u> </u> | Notes <u> </u> | |
| <u>M. RAMOS</u> | Well Depth MEAS <u>6.0</u> RPTD <u>6.0</u> | Feet of Water <u> </u> | |
| Sample ID <u>86-S1-059</u> | Depth of Bottom of Tubing <u>5.35</u> | | |
| Duplicate ID <u>N/A</u> | Depth to Water (w/ Tubing in Well) <u>5.8</u> | | |

PURGING

| Time | Discharge Rate ¹ (L/min) | Dissolved Oxygen (mg/L) | pH | Eh/ORP (mV) | Temp. (°C) | Specific Conduct. (µmhos/cm at °C) | Turbidity (NTU) | Cumulative Volume of Water Removed/Purged (Gallons) | PID/OVA Reading | | Depth to Water ² (ft) | Comments |
|------|-------------------------------------|-------------------------|------|-------------|------------|------------------------------------|-----------------|-----------------------------------------------------|-----------------|-------|----------------------------------|----------|
| | | | | | | | | | Location | Value | | |
| 1240 | .3 | 2.13 | 7.07 | 382 | 19.69 | 100.000 | 101.8 | .1 | | | 5.42 | |
| 1243 | .3 | 1.97 | 7.09 | 386 | 19.63 | 100.000 | 37.5 | .2 | | | 5.59 | |
| 1246 | .3 | 1.87 | 7.09 | 387 | 19.66 | 100.000 | 18.7 | .4 | | | 5.66 | |
| 1249 | .3 | 1.50 | 7.09 | 387 | 19.64 | 100.000 | 15.0 | .5 | | | 5.73 | |
| 1252 | .3 | 1.43 | 7.10 | 387 | 19.52 | 100.000 | 14.3 | .6 | | | 5.80 | |
| 1255 | .3 | 1.42 | 7.10 | 386 | 19.34 | 100.000 | 20.7 | .7 | | | 5.84 | |
| | Trench | RAW DRY | | | | | | | | | | |
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Notes:

- Purge rate = 0.2 - 0.5 L/minute
- Drawdown shall be <0.33 foot

SAMPLE PARAMETERS

| | | | | | | | |
|---------|----------|--------|--------|-----------|------------|--|--|
| 2xSVOCs | 2xSVOC's | 2xPCBs | 2xPEST | 1xD.MERC. | 1xD.Metals | | |
|---------|----------|--------|--------|-----------|------------|--|--|

SAMPLE RATE

| | | | | | | | |
|--|--|--|--|--|--|--|--|
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|--|--|--|--|--|--|--|--|

Notes:

- Sample rate for VOCs analysis = 0.1 - 0.2 L/minute
- Sample rate for non-VOCs analysis = purge rate = 0.2 - 0.5 L/minute

Condition of Well: Good.Remarks: Extremely turbid water - H₂S Odor

FIELD EQUIPMENT

| | | |
|-----------------------------------------|------------------------------|---------------------------------------------------------------------------------------------------|
| pH Meter <u>HYDROLAB</u> | Serial Number <u>#R41041</u> | Number of Bottles <u>2X1LA</u> |
| Temperature Meter <u>HYDROLAB</u> | Serial Number <u>#R41041</u> | <u>6X1LA</u> |
| Turbidity Meter <u>HYDROLAB</u> | Serial Number <u>#R41041</u> | <u>1X1LP</u> |
| Spec. Elec. Cond. Meter <u>HYDROLAB</u> | Serial Number <u>#R41041</u> | <u>1X250mLP</u> |
| ORP Meter <u>HYDROLAB</u> | Serial Number <u>#R41041</u> | Field Notebook <u>Pg. 49</u> |
| D.O. Meter <u>HYDROLAB</u> | Serial Number <u>#R41041</u> | Sample Method <u>Low Flow</u> |
| Interface Probe <u>SOLINST</u> | Serial Number <u>#25582</u> | |
| PID/OVA <u>MINI-RAE</u> | Serial Number <u>#00320</u> | |
| Pump <u>GEO-PUMP</u> | Serial Number <u>BA0041</u> | |
| Filter Apparatus <u>GEO-.45 MICRON</u> | | Discharge Water Containerized <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |



TETRA TECH FW, INC.

LOW-FLOW GROUNDWATER SAMPLING DATA SHEET

Page 1 of 1Date 11/8/04

| | | | |
|---------------------------------------|---------------------------------------------------------------------------|------------------------------------------------|-----------------------------------------------------------------------------------------------|
| Well Name <u>W1-24</u> | Screen Interval <u>6-16</u> | Station Elevation <u>GND</u> TOC <u> </u> | Immiscible Phases Present <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Project <u>CTO 86-Site 1</u> | Static Water Level (from TOC) / Time <u>7.83/0827 7.83/0828 7.83/0829</u> | | |
| Project No. <u>1990.086E</u> | Average Water Level (from TOC) <u>7.83</u> | | |
| Well Location <u>Moffett- Site 1</u> | Reference Point <u>TOC</u> | PID Readings (background) <u>Oppm</u> | |
| Sample Date <u>11/10/04</u> | Reference Elevation <u> </u> | PID Reading (TOC) <u>Oppm</u> | |
| Sampling Personnel <u>D. HARRISON</u> | Static Elevation <u> </u> | Notes <u> </u> | |
| <u>M. RAMOS</u> | Well Depth MEAS <u>20.26</u> RPTD <u> </u> | Feet of Water <u> </u> | |
| Sample ID <u>86-S1-067</u> | Depth of Bottom of Tubing <u>11</u> | | |
| Duplicate ID <u>N/A</u> | Depth to Water (w/ Tubing in Well) <u>7.83</u> | | |

PURGING

| Time | Discharge Rate ¹ (L/min) | Dissolved Oxygen (mg/L) | pH | Eh/ORP (mV) | Temp. (°C) | Specific Conduct. (µmhos/cm at °C) | Turbidity (NTU) | Cumulative Volume of Water Removed/Purged (Gallons) | PID/OVA Reading | | Depth to Water ² (ft) | Comments |
|------|-------------------------------------|-------------------------|------|-------------|------------|------------------------------------|-----------------|-----------------------------------------------------|-----------------|-------|----------------------------------|----------|
| | | | | | | | | | Location | Value | | |
| 0850 | .4 | 0.62 | 6.59 | 209 | 15.39 | 86072 | 2.9 | .2 | | | 7.85 | |
| 0852 | .4 | 0.45 | 6.56 | 198 | 15.30 | 86025 | 2.0 | .4 | | | 7.87 | |
| 0856 | .4 | 0.32 | 6.54 | 191 | 15.71 | 82022 | 1.8 | .6 | | | 7.89 | |
| 0859 | .4 | 0.31 | 6.51 | 187 | 15.32 | 82111 | 3.1 | .8 | | | 7.90 | |
| 0902 | .4 | 0.30 | 6.48 | 186 | 15.29 | 81460 | 5.3 | 1.0 | | | 7.90 | |
| 0905 | Collect Sample | | | | | | | | | | | |
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Notes:

- Purge rate = 0.2 - 0.5 L/minute
- Drawdown shall be <0.33 foot

SAMPLE PARAMETERS

| 3XVOCs | 2xSVOC's | 2xPCBs | 2xPEST | 1xD.MERC. | 1xD.Metals | | |
|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|--|--|
| <u>.1 L/min</u> | <u>.4 L/min</u> | <u>.4 L/min</u> | <u>.4 L/min</u> | <u>.4 L/min</u> | <u>.4 L/min</u> | | |

Notes:

- Sample rate for VOCs analysis = 0.1 - 0.2 L/minute
- Sample rate for non-VOCs analysis = purge rate = 0.2 - 0.5 L/minute

Condition of Well: GoodRemarks: Green/turbid water. VOC samples effervescence

FIELD EQUIPMENT

| | | |
|-----------------------------------------|------------------------------|---------------------------------------------------------------------------------------------------|
| pH Meter <u>HYDROLAB</u> | Serial Number <u>#R41041</u> | Number of Bottles <u>3x40mL</u> |
| Temperature Meter <u>HYDROLAB</u> | Serial Number <u>#R41041</u> | <u>6X1LA</u> |
| Turbidity Meter <u>HYDROLAB</u> | Serial Number <u>#R41041</u> | <u>1X1LP</u> |
| Spec. Elec. Cond. Meter <u>HYDROLAB</u> | Serial Number <u>#R41041</u> | <u>1X250mLP</u> |
| ORP Meter <u>HYDROLAB</u> | Serial Number <u>#R41041</u> | Field Notebook <u>Pg. 52</u> |
| D.O. Meter <u>HYDROLAB</u> | Serial Number <u>#R41041</u> | Sample Method <u>Low Flow</u> |
| Interface Probe <u>SOLINST</u> | Serial Number <u>#25582</u> | |
| PID/OVA <u>MINI-RAE</u> | Serial Number <u>#00320</u> | |
| Pump <u>GEO-PUMP</u> | Serial Number <u>BA0041</u> | |
| Filter Apparatus <u>GEO-45 MICRON</u> | | Discharge Water Containerized <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |

SUPPLEMENTAL SAMPLING

JULY 2004



TETRA TECH FW, INC.

LOW-FLOW GROUNDWATER
SAMPLING DATA SHEETPage 1 of 1Date 7-7-04

Well Name W1-1
 Project CTO 86
 Project No. 1990.086E
 Well Location MOFFETT-SITE 1
 Sample Date 7-7-04
 Sampling Personnel B. Cole
M. Ramos

Screen Interval 15-25
 Station Elevation GND TOC Immiscible Phases Present ☐ Yes ☐ No
 Static Water Level (from TOC) / Time 1108-5.49 1109-5.50 1110-5.50
 Average Water Level (from TOC) 5.50
 Reference Point TOC PID Readings (background) 0 PPM
 Reference Elevation PID Reading (TOC) 0 PPM
 Static Elevation Notes
 Well Depth MEAS 25.90 RPTD Feet of Water
 Depth of Bottom of Tubing 20
 Depth to Water (w/ Tubing in Well) 5.49

Sample ID 86-S1-017
 Duplicate ID NA

Duplicate ID

NA

Depth to Water (w/ Tubing in Well)

PURGING

| Time | Discharge Rate ¹ (L/min) | Dissolved Oxygen (mg/L) | pH | Eh/ORP (mV) | Temp. (°C) | Specific Conduct. (µmhos/cm at °C) | Turbidity (NTU) | Cumulative Volume of Water Removed/Purged (Gallons) | PID/OVA Reading | | Depth to Water ² (ft) | Comments |
|------|-------------------------------------|-------------------------|------|-------------|------------|------------------------------------|-----------------|-----------------------------------------------------|-----------------|-------|----------------------------------|----------|
| | | | | | | | | | Location | Value | | |
| 1110 | .4 | .80 | 6.16 | -177 | 23.03 | 40592 | 6.7 | .2 | | | 5.50 | 5.53 |
| 1113 | .4 | .52 | 6.14 | -145 | 25.07 | 41544 | 4.5 | .5 | | | 5.51 | |
| 1116 | .4 | .46 | 6.12 | -138 | 25.42 | 42276 | 4.3 | .7 | | | 5.51 | |
| 1119 | .4 | .37 | 6.10 | -133 | 25.26 | 42322 | 3.5 | 1.0 | | | 5.52 | |
| 1122 | .4 | .26 | 6.10 | -138 | 25.06 | 42753 | 3.1 | 1.3 | | | 5.51 | |
| 1125 | .4 | .30 | 6.10 | -133 | 25.01 | 42650 | 3.0 | 1.5 | | | 5.52 | |
| 1128 | .4 | .29 | 6.10 | -132 | 24.99 | 42699 | 2.9 | 1.8 | | | 5.51 | |
| 1131 | .4 | .28 | 6.11 | -132 | 25.00 | 42708 | 3.0 | 2.1 | | | 5.50 | |
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Notes:

- Purge rate = 0.2 - 0.5 L/minute
- Drawdown shall be <0.33 foot

SAMPLE PARAMETERS

| | | | | | | | | | | | | |
|-------------|----------|--|--|--|--|--|--|--|--|--|--|--|
| 2x SVOCs | 1x D. Hg | | | | | | | | | | | |
| SAMPLE RATE | | | | | | | | | | | | |
| .4 | .4 | | | | | | | | | | | |

Notes:

- Sample rate for VOCs analysis = 0.1 - 0.2 L/minute
- Sample rate for non-VOCs analysis = purge rate = 0.2 - 0.5 L/minute

Condition of Well: GOODRemarks: Dissolved Mercury was Field Filtered

FIELD EQUIPMENT

pH Meter HYDROLAB
 Temperature Meter HYDROLAB
 Turbidity Meter LA MOTTE
 Spec. Elec. Cond. Meter HYDROLAB
 ORP Meter HYDROLAB
 D.O. Meter HYDROLAB
 Interface Probe SOLIDST
 PID/OVA MINI-RAE
 Pump GEO-PUMP
 Filter Apparatus GEO-.45 MICRON

Serial Number 41045
 Serial Number 41045
 Serial Number 02032
 Serial Number 41045
 Serial Number 41045
 Serial Number 41045
 Serial Number 25582
 Serial Number 00320
 Serial Number PINE 2443

Number of Bottles 3Field Notebook pg. 23Sample Method Low FlowDischarge Water Containerized ☒ Yes ☐ No



TETRA TECH FW, INC.

LOW-FLOW GROUNDWATER
SAMPLING DATA SHEETPage 1 of 1Date 7-6-04Well Name W1-5Project CTO 86Project No. 1990.086EWell Location MOFFETT-SITE 1Sample Date 7-6-04Sampling Personnel B. OgbeM. RamosSample ID 86-S1-026Duplicate ID N/AScreen Interval 14.5-19.5Station Elevation GND TOC Immiscible Phases Present ☐ Yes ☒ NoStatic Water Level (from TOC) / Time 1205-5.51 1206-5.50 1207-5.51Average Water Level (from TOC) 5.51Reference Point TOCReference Elevation Static Elevation Well Depth MEAS 21.32 RPTD Depth of Bottom of Tubing 17Depth to Water (w/ Tubing in Well) 5.50PID Readings (background) 0 ppmPID Reading (TOC) 0 ppmNotes Feet of Water

PURGING

| Time | Discharge Rate ¹ (L/min) | Dissolved Oxygen (mg/L) | pH | EH/ORP (mV) | Temp. (°C) | Specific Conduct. (µmhos/cm at °C) | Turbidity (NTU) | Cumulative Volume of Water Removed/Purged (Gallons) | PID/OVA Reading | | Depth to Water ² (ft) | Comments |
|------|-------------------------------------|-------------------------|------|-------------|------------|------------------------------------|-----------------|-----------------------------------------------------|-----------------|-------|----------------------------------|----------|
| | | | | | | | | | Location | Value | | |
| 1207 | .4 | .80 | 6.55 | -128 | 27.83 | 48150 | 4.2 | .2 | | | 5.50 | |
| 1210 | .4 | .40 | 6.56 | -146 | 27.20 | 49099 | 3.7 | .5 | | | 5.51 | |
| 1213 | .4 | .32 | 6.57 | -153 | 26.92 | 50142 | 3.2 | .8 | | | 5.50 | |
| 1216 | .4 | .27 | 6.58 | -163 | 26.58 | 52000 | 3.1 | 1.0 | | | 5.52 | |
| 1219 | .4 | .24 | 6.57 | -173 | 26.38 | 51370 | 3.0 | 1.3 | | | 5.51 | |
| 1222 | .4 | .23 | 6.57 | -168 | 26.27 | 51410 | 3.1 | 1.5 | | | 5.52 | |
| 1225 | .4 | .23 | 6.57 | -171 | 26.25 | 51266 | 3.0 | 1.8 | | | 5.50 | |
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Notes:

- Purge rate = 0.2 - 0.5 L/minute
- Drawdown shall be <0.33 foot

SAMPLE PARAMETERS

2x SVOCs 1x D.Hg

SAMPLE RATE

.4 .4

Notes:

- Sample rate for VOCs analysis = 0.1 - 0.2 L/minute
- Sample rate for non-VOCs analysis = purge rate = 0.2 - 0.5 L/minute

Condition of Well: GoodRemarks: Dissolved Mercury sample was Field Filtered

FIELD EQUIPMENT

pH Meter HydrolabTemperature Meter HydrolabTurbidity Meter LA MOTTESpec. Elec. Cond. Meter HydrolabORP Meter HydrolabD.O. Meter HydrolabInterface Probe BolinistPID/OVA Mini-RaePump Geo-PumpFilter Apparatus Geo-.45 micronSerial Number 41045Serial Number 41045Serial Number 02032Serial Number 41045Serial Number 41045Serial Number 41045Serial Number 25582Serial Number 00320Serial Number PINE 2443Number of Bottles 3Field Notebook pg 19Sample Method Low FlowDischarge Water Containerized ☒ Yes ☐ No



TETRA TECH FW, INC.

LOW-FLOW GROUNDWATER
SAMPLING DATA SHEETPage 1 of 1Date 7-6-04Well Name W1-8Project CTO 86Project No. 1990.086EWell Location MOFFETT-SITE 1Sample Date 7-6-04Sampling Personnel B. OgileM. RhmosScreen Interval 13-18Station Elevation GND TOC Immiscible Phases Present ☐ Yes ☒ NoStatic Water Level (from TOC) / Time 1115 5.52 1116 5.50 1117 5.51Average Water Level (from TOC) 5.51Reference Point TOCPID Readings (background) 0 ppmReference Elevation PID Reading (TOC) 0 ppmStatic Elevation Notes Well Depth MEAS 22.60 RPTD Feet of Water Sample ID 86-S1-027Duplicate ID N/ADepth of Bottom of Tubing 15.5Depth to Water (w/ Tubing in Well) 5.50

PURGING

| Time | Discharge Rate ¹ (L/min) | Dissolved Oxygen (mg/L) | pH | Eh/ORP (mV) | Temp. (°C) | Specific Conduct. (µmhos/cm at °C) | Turbidity (NTU) | Cumulative Volume of Water Removed/Purged (Gallons) | PID/OVA Reading | | Depth to Water ² (ft) | Comments |
|------|----------------------------------------|----------------------------|------|----------------|---------------|---------------------------------------|--------------------|--------------------------------------------------------|-----------------|-------|----------------------------------|----------|
| | | | | | | | | | Location | Value | | |
| 1122 | .4 | 1.11 | 6.65 | 34 | 26.35 | 44373 | 3.8 | .3 | | | 5.51 | |
| 1125 | .4 | .56 | 6.66 | 33 | 26.49 | 44340 | 2.8 | .6 | | | 5.50 | |
| 1128 | .4 | .30 | 6.68 | 33 | 26.35 | 44327 | 2.6 | 1.0 | | | 5.50 | |
| 1131 | .4 | .25 | 6.68 | 35 | 26.12 | 44580 | 2.6 | 1.2 | | | 5.52 | |
| 1134 | .4 | .21 | 6.69 | 37 | 26.20 | 44640 | 2.6 | 1.5 | | | 5.50 | |
| 1137 | .4 | .21 | 6.68 | 36 | 26.12 | 44626 | 2.7 | 1.8 | | | 5.52 | |
| 1140 | .4 | .22 | 6.68 | 37 | 26.15 | 44777 | 2.7 | 2.1 | | | 5.50 | |
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Notes:

1. Purge rate = 0.2 - 0.5 L/minute

2. Drawdown shall be <0.33 foot

SAMPLE PARAMETERS

| | | | | | | | |
|-----------|----------|--|--|--|--|--|--|
| 2 x SVOCs | 1 x D.Hg | | | | | | |
|-----------|----------|--|--|--|--|--|--|

SAMPLE RATE

| | | | | | | | |
|--|--|--|--|--|--|--|--|
| | | | | | | | |
|--|--|--|--|--|--|--|--|

Notes:

1. Sample rate for VOCs analysis = 0.1 - 0.2 L/minute

2. Sample rate for non-VOCs analysis = purge rate = 0.2 - 0.5 L/minute

Condition of Well: GoodRemarks: Dissolved Mercury was Field Filtered

FIELD EQUIPMENT

pH Meter HydrolabTemperature Meter HydrolabTurbidity Meter LAMORTESpec. Elec. Cond. Meter HydrolabORP Meter HydrolabD.O. Meter HydrolabInterface Probe SolincoPID/OVA Muni-RaePump Geo-PumpFilter Apparatus Geo - .45 MicronSerial Number 41045Serial Number 41045Serial Number 02032Serial Number 41045Serial Number 41045Serial Number 41045Serial Number 25582Serial Number 00320Serial Number PINE 2443Number of Bottles 3Field Notebook pg 19Sample Method Low FlowDischarge Water Containerized ☒ Yes ☐ No

LOW-FLOW GROUNDWATER SAMPLING DATA SHEET

Page 1 of 1

Date 7-6-04

| | | | |
|-------------------------------------|-----------------------------------------------------------------------------------------|--------------------------------------------------|-----------------------------------------------------------------------------------------------|
| Well Name <u>W1-12R</u> | Screen Interval <u>15-25</u> | Station Elevation <u>GND</u> TOC <u> </u> | Immiscible Phases Present <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Project <u>CTO 86</u> | Static Water Level (from TOC) / Time <u>1435-2.92</u> <u>1436-2.92</u> <u>1437-2.92</u> | Average Water Level (from TOC) <u>2.92</u> | |
| Project No. <u>1990.086E</u> | Reference Point <u>TOC</u> | PID Readings (background) <u>0 ppm</u> | |
| Well Location <u>MOFFETT-SITE 1</u> | Reference Elevation <u> </u> | PID Reading (TOC) <u>0 ppm</u> | |
| Sample Date <u>7-6-04</u> | Static Elevation <u> </u> | Notes <u> </u> | |
| Sampling Personnel <u>B. OGLE</u> | Well Depth MEAS <u>25.65</u> RPTD <u> </u> | Feet of Water <u> </u> | |
| <u>M. RAMOS</u> | Depth of Bottom of Tubing <u>20'</u> | | |
| Sample ID <u>86-S1-024</u> | Depth to Water (w/ Tubing in Well) <u>2.92</u> | | |
| Duplicate ID <u>N.A.</u> | | | |

[illegible]

Notes:

1. Purge rate = 0.2 - 0.5 L/minute
2. Drawdown shall be < 0.33 foot

SAMPLE PARAMETERS

| SAMPLE PARAMETERS | | | | | | | |
|-------------------|---------|--|--|--|--|--|--|
| 2x SVOCs | 1x D:Hg | | | | | | |
| SAMPLE RATE | | | | | | | |
| .4 | .4 | | | | | | |

Notes

1. Sample rate for VOCs analysis = 0.1 - 0.2 L/minute
2. Sample rate for non-VOCs analysis = purge rate = 0.2 - 0.5 L/minute

Condition of Well: Good

Remarks: Disolved Mercury Sample is Field Filtered

FIELD EQUIPMENT

| | | | | |
|----------------------------------|---------------|-----------|-------------------------------|---------------------------------------------------------------------|
| FIELD EQUIPMENT | Serial Number | 41045 | Number of Bottles | 3 |
| pH Meter Hydrolab | Serial Number | 41045 | | |
| Temperature Meter Hydrolab | Serial Number | 02032 | | |
| Turbidity Meter LAMOTTE | Serial Number | 41045 | Field Notebook | pg. 20 |
| Spec. Elec. Cond. Meter Hydrolab | Serial Number | 41045 | | |
| ORP Meter Hydrolab | Serial Number | 41045 | Sample Method | Low Flow |
| D.O. Meter Hydrolab | Serial Number | 25582 | | |
| Interface Probe Solinst | Serial Number | 00320 | | |
| PID/OVA Mini-Rae | Serial Number | PINE 2443 | | |
| Pump Geo-pump | | | | |
| Filter Apparatus Geol .45 micron | | | Discharge Water Containerized | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |

LOW-FLOW GROUNDWATER SAMPLING DATA SHEET

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|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Well Name <u>WI-14</u> Project <u>CTO 86</u> Project No. <u>1990.086E</u> Well Location <u>Moffett - Site 1</u> Sample Date <u>7-6-04</u> Sampling Personnel <u>B. Oyle</u> <u>M. Ramos</u> | Screen Interval <u>4.1-14.1</u> Station Elevation <u> </u> GND <u> </u> TOC <u> </u> Immiscible Phases Present <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Static Water Level (from TOC) / Time <u>1538-5.76</u> <u>1539-5.76</u> <u>1540-5.76</u> Average Water Level (from TOC) <u>5.76</u> Reference Point <u>TOC</u> PID Readings (background) <u>0</u> ppm Reference Elevation <u> </u> PID Reading (TOC) <u>0</u> ppm Static Elevation <u> </u> Notes <u> </u> Well Depth MEAS <u>17.68</u> RPTD <u> </u> Feet of Water <u> </u> Depth of Bottom of Tubing <u>9.1</u> Depth to Water (w/ Tubing in Well) <u>5.73</u> |
| Sample ID <u>86-SI-022</u> Duplicate ID <u>86-SI-023</u> | |

[illegible]

Notes:

1. Purge rate = 0.2 - 0.5 U/minute
2. Drawdown shall be <0.33 foot

SAMPLE PARAMETERS

| SAMPLE PARAMETERS | | | | | | | |
|-------------------|-----------|--|--|--|--|--|--|
| 2 x SVOCS | 1 x D. Hg | | | | | | |
| SAMPLE RATE | | | | | | | |
| .4 | .4 | | | | | | |

Notes:

1. Sample rate for VOCs analysis = 0.1 - 0.2 L/minute
2. Sample rate for non-VOCs analysis = purge rate = 0.2 - 0.5 L/minute

Condition of Well: Good

Condition of Well: Good
Remarks: Dissolved Mercury sample was field filtered

FIELD EQUIPMENT

| | | | | |
|----------------------------------|---------------|-------------|-------------------------------|---------------------------------------------------------------------|
| FIELD EQUIPMENT | Serial Number | 41045 | Number of Bottles | 12 |
| pH Meter Hydrolab | Serial Number | 41045 | | |
| Temperature Meter Hydrolab | Serial Number | 41045 | Field Notebook | pg 21 |
| Turbidity Meter LAMotte | Serial Number | 41045 02032 | | |
| Spec. Elec. Cond. Meter Hydrolab | Serial Number | 41045 | Sample Method | Low Flow |
| ORP Meter Hydrolab | Serial Number | 41045 | | |
| D.O. Meter Hydrolab | Serial Number | 41045 | | |
| Interface Probe Solinst | Serial Number | 25582 | | |
| PID/OVA Mini-Rae | Serial Number | 00320 | | |
| Pump Geo-pump | Serial Number | PINE 2443 | | |
| Filter Apparatus Geo .45 micron | | | Discharge Water Containerized | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |



TETRA TECH FW, INC.

LOW-FLOW GROUNDWATER
SAMPLING DATA SHEETPage 1 of 1Date 7-7-04

Well Name W1-15
 Project CTO 86
 Project No. 1990.086E
 Well Location MOFFETT - SITE 1
 Sample Date 7-7-04
 Sampling Personnel B. OGLE
M. RAMOS

Screen Interval 4.4-14.4
 Station Elevation GND TOC Immiscible Phases Present ☐ Yes ☒ No
 Static Water Level (from TOC) / Time 1018-5.84 1019-5.84 1020-5.84
 Average Water Level (from TOC) 5.84
 Reference Point TOC PID Readings (background) 0 ppm
 Reference Elevation PID Reading (TOC) 0 ppm
 Static Elevation Notes
 Well Depth MEAS 17.42 RPTD Feet of Water
 Depth of Bottom of Tubing 9.4
 Depth to Water (w/ Tubing in Well) 5.83

Sample ID 81-SI-018
 Duplicate ID 81-SI-019

PURGING

| Time | Discharge Rate ¹ (L/min) | Dissolved Oxygen (mg/L) | pH | EH/ORP (mV) | Temp. (°C) | Specific Conduct. (µmhos/cm at °C) | Turbidity (NTU) | Cumulative Volume of Water Removed/Purged (Gallons) | PID/OVA Reading | | Depth to Water ² (ft) | Comments |
|------|-------------------------------------|-------------------------|------|-------------|------------|------------------------------------|-----------------|-----------------------------------------------------|-----------------|-------|----------------------------------|----------|
| | | | | | | | | | Location | Value | | |
| 1022 | .4 | .92 | 6.07 | -317 | 25.88 | 38584 | 3.4 | .2 | | | 5.84 | |
| 1025 | .4 | .59 | 6.11 | -315 | 25.26 | 39554 | 3.2 | .5 | | | 5.85 | |
| 1028 | .4 | .33 | 6.14 | -310 | 25.12 | 39571 | 3.3 | .7 | | | 5.86 | |
| 1031 | .4 | .29 | 6.15 | -322 | 25.11 | 40861 | 3.2 | 1.0 | | | 5.85 | |
| 1034 | .4 | .29 | 6.15 | -323 | 25.21 | 40790 | 3.2 | 1.3 | | | 5.85 | |
| 1037 | .4 | .28 | 6.16 | -323 | 25.18 | 40916 | 3.2 | 1.5 | | | 5.84 | |
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Notes:

- Purge rate = 0.2 - 0.5 L/minute
- Drawdown shall be <0.33 foot

SAMPLE PARAMETERS

| | | | | | | | | | | | | |
|-------------|----------|--|--|--|--|--|--|--|--|--|--|--|
| 2x SVOCs | 1x D. Hg | | | | | | | | | | | |
| SAMPLE RATE | | | | | | | | | | | | |
| .4 | .4 | | | | | | | | | | | |

Notes:

- Sample rate for VOCs analysis = 0.1 - 0.2 L/minute
- Sample rate for non-VOCs analysis = purge rate = 0.2 - 0.5 L/minute

Condition of Well: GoodRemarks: Dissolved Mercury Sample was Field Filtered

FIELD EQUIPMENT

pH Meter HYDROLAB
 Temperature Meter HYDROLAB
 Turbidity Meter LA MOTTE
 Spec. Elec. Cond. Meter HYDROLAB
 ORP Meter HYDROLAB
 D.O. Meter HYDROLAB
 Interface Probe SOLINST
 PID/OVA MINI-RAE
 Pump Geo-PUMP
 Filter Apparatus Geo-.45 MICRON

Serial Number 41045
 Serial Number 41045
 Serial Number 02032
 Serial Number 41045
 Serial Number 41045
 Serial Number 41045
 Serial Number 25582
 Serial Number 00320
 Serial Number PINE 2443

Number of Bottles 3Field Notebook pg. 22Sample Method Low FlowDischarge Water Containerized ☒ Yes ☐ No



TETRA TECH FW, INC.

LOW-FLOW GROUNDWATER
SAMPLING DATA SHEETPage 1 of 1Date 7-6-04

| | | | |
|------------------------------------------------------|-------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| Well Name <u>WI-16</u> | Screen Interval <u>5.4 - 15.4</u> | Station Elevation <u> </u> GND <u> </u> TOC <u> </u> | Immiscible Phases Present <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Project <u>CTO 86</u> | Static Water Level (from TOC) / Time <u>10:00 6.9</u> <u>10:01 6.91</u> <u>10:02 6.88</u> | Average Water Level (from TOC) <u>6.90</u> | |
| Project No. <u>1990.086E</u> | Reference Point <u>TOC</u> | PID Readings (background) <u>0 ppm</u> | |
| Well Location <u>MOFFETT - SITE 1</u> | Reference Elevation <u> </u> | PID Reading (TOC) <u>0 ppm</u> | |
| Sample Date <u>7-6-04</u> | Static Elevation <u> </u> | Notes <u> </u> | |
| Sampling Personnel <u>B. OGLE</u> <u>M. RAMOS</u> | Well Depth MEAS <u>18.23</u> RPTD <u> </u> | Feet of Water <u> </u> | |
| Sample ID <u>86-SI-029</u> | Depth of Bottom of Tubing <u>10.4</u> | | |
| Duplicate ID <u>N/A</u> | Depth to Water (w/ Tubing in Well) <u>7.10</u> | | |

PURGING

| Time | Discharge Rate ¹ (L/min) | Dissolved Oxygen (mg/L) | pH | Eh/ORP (mV) | Temp. (°C) | Specific Conduct. (µmhos/cm at °C) | Turbidity (NTU) | Cumulative Volume of Water Removed/Purged (Gallons) | PID/OVA Reading | | Depth to Water ² (ft) | Comments |
|------|-------------------------------------|-------------------------|------|-------------|------------|------------------------------------|-----------------|-----------------------------------------------------|-----------------|-------|----------------------------------|----------|
| | | | | | | | | | Location | Value | | |
| 1010 | .4 | 0.92 | 6.45 | 190 | 24.42 | 42150 | 2.9 | .3 | | | 6.91 | |
| 1013 | .4 | 0.47 | 6.44 | 120 | 24.30 | 41916 | 2.7 | .6 | | | 6.93 | |
| 1016 | .4 | 0.37 | 6.45 | 131 | 24.29 | 42831 | 2.6 | 1.0 | | | 6.94 | |
| 1019 | .4 | 0.31 | 6.45 | 139 | 24.32 | 43121 | 2.6 | 1.2 | | | 6.98 | |
| 1022 | .4 | 0.30 | 6.45 | 143 | 24.32 | 43204 | 2.5 | 1.5 | | | 6.97 | |
| 1025 | .4 | 0.30 | 6.45 | 149 | 24.28 | 43166 | 2.4 | 1.8 | | | 7.00 | |
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Notes:

- Purge rate = 0.2 - 0.5 L/minute
- Drawdown shall be <0.33 foot

SAMPLE PARAMETERS

| | | | | | | | |
|-----------|------------|--|--|--|--|--|--|
| 2 x SVOCs | 1 x Dis HG | | | | | | |
|-----------|------------|--|--|--|--|--|--|

SAMPLE RATE

| | | | | | | | |
|----|----|--|--|--|--|--|--|
| .4 | .4 | | | | | | |
|----|----|--|--|--|--|--|--|

Notes:

- Sample rate for VOCs analysis = 0.1 - 0.2 L/minute
- Sample rate for non-VOCs analysis = purge rate = 0.2 - 0.5 L/minute

Condition of Well: GoodRemarks: DISSOLVED MERCURY IS FIELD FILTERED

FIELD EQUIPMENT

pH Meter HYDROLAB
 Temperature Meter HYDROLAB
 Turbidity Meter LAMOTTE
 Spec. Elec. Cond. Meter HYDROLAB
 ORP Meter HYDROLAB
 D.O. Meter HYDROLAB
 Interface Probe SOLINST
 PID/OVA MINI RAZ
 Pump G20-PUMP
 Filter Apparatus G20-.45 MICRON

Serial Number 41045
 Serial Number 41045
 Serial Number 02032
 Serial Number 41045
 Serial Number 41045
 Serial Number 41045
 Serial Number 25582
 Serial Number 00320
 Serial Number PNR 2443

Number of Bottles 3Field Notebook PG. 18Sample Method Low FlowDischarge Water Containerized ☒ Yes ☐ No

LOW-FLOW GROUNDWATER SAMPLING DATA SHEET

Page / of /

Date 7-7-04

| | | | |
|------------------------------------|-----------------------------------------------------------------------------------------|---------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| Well Name <u>W1-19</u> | Screen Interval <u>14-19</u> | Station Elevation <u> </u> GND <u> </u> TOC <u> </u> | Immiscible Phases Present <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Project <u>CTO 86</u> | Static Water Level (from TOC) / Time <u>0713-5.30</u> <u>0714-5.32</u> <u>0715-5.33</u> | | |
| Project No. <u>1990.086E</u> | Average Water Level (from TOC) <u>5.32</u> | | |
| Well Location <u>MOFFETT-SITE1</u> | Reference Point <u>TOC</u> | PID Readings (background) <u>0 PPM</u> | |
| Sample Date <u>7-7-04</u> | Reference Elevation <u> </u> | PID Reading (TOC) <u>0 PPM</u> | |
| Sampling Personnel <u>B. Ogile</u> | Static Elevation <u> </u> | Notes <u> </u> | |
| <u>M. Ramos</u> | Well Depth MEAS <u>21.29</u> RPTD <u> </u> | Feet of Water <u> </u> | |
| Sample ID <u>86-S1-020</u> | Depth of Bottom of Tubing <u>16.5</u> | | |
| Duplicate ID <u>NA</u> | Depth to Water (w/ Tubing in Well) <u>5.31</u> | | |

[illegible]

Notes:

1. Purge rate = 0.2 - 0.5 L/minute
2. Drawdown shall be <0.33 foot

SAMPLE PARAMETERS

| | | | | | | | | | |
|--------------------|--|----|--|--|--|--|--|--|--|
| 2 x SVOCs 1 x D.Hg | | | | | | | | | |
| SAMPLE RATE | | | | | | | | | |
| .4 | | .4 | | | | | | | |

Notes:

1. Sample rate for VOCs analysis = 0.1 - 0.2 L/minute
2. Sample rate for non-VOCs analysis = purge rate = 0.2 - 0.5 L/minute

Condition of Well:

Condition of Well: Good
Remarks: Dissolved Mercury Sample was Field Filtered

FIELD EQUIPMENT

| | | | | | |
|-------------------------|-----------------|---------------|-----------|-------------------------------|---------------------------------------------------------------------|
| pH Meter | Hydrolab | Serial Number | 41045 | Number of Bottles | 5 |
| Temperature Meter | Hydrolab | Serial Number | 41045 | | |
| Turbidity Meter | Lamotte | Serial Number | 02032 | | |
| Spec. Elec. Cond. Meter | Hydrolab | Serial Number | 41045 | Field Notebook | pg 22 |
| ORP Meter | Hydrolab | Serial Number | 41045 | | |
| D.O. Meter | Hydrolab | Serial Number | 41045 | Sample Method | Low Flow |
| Interface Probe | Sdinst | Serial Number | 414 25582 | | |
| PID/OVA | Mini-Rae | Serial Number | 06320 | | |
| Pump | Geo-Pump | Serial Number | PIUE 2443 | | |
| Filter Apparatus | Geot. 45 Micron | | | Discharge Water Containerized | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |

LOW-FLOW GROUNDWATER SAMPLING DATA SHEET

| | | | |
|------------------------------------|-----------------------------------------------------------------------------------------|---------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| Well Name <u>W1-22</u> | Screen Interval <u>N.A.</u> | Station Elevation <u> </u> GND <u> </u> TOC <u> </u> | Immiscible Phases Present <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Project <u>CTO 86</u> | Static Water Level (from TOC) / Time <u>1348-3.62</u> <u>1349-3.62</u> <u>1350-3.61</u> | | |
| Project No. <u>1990.086E</u> | Average Water Level (from TOC) <u>3.62</u> | | |
| Well Location <u>MOFFETT-SITE1</u> | Reference Point <u>TOC</u> | PID Readings (background) <u>0</u> ppm | |
| Sample Date <u>7-6-04</u> | Reference Elevation <u> </u> | PID Reading (TOC) <u>0</u> ppm | |
| Sampling Personnel <u>B. Ogle</u> | Static Elevation <u> </u> | Notes <u> </u> | |
| <u>M. Ramos</u> | Well Depth MEAS <u>6.66</u> RPTD <u> </u> | Feet of Water <u> </u> | |
| Sample ID <u>86-S1-025</u> | Depth of Bottom of Tubing <u> </u> | | |
| Duplicate ID <u>N/A</u> | Depth to Water (w/ Tubing in Well) <u>3.62</u> | | |

[illegible]

Notes:

1. Purge rate = 0.2 - 0.5 L/minute
2. Drawdown shall be ≤ 0.33 foot

SAMPLE PARAMETERS

| SAMPLE PARAMETERS | | | | | | | |
|-------------------|-----------|--|--|--|--|--|--|
| 2 x SVOCs | 1 x D. Hg | | | | | | |
| SAMPLE RATE | | | | | | | |
| .4 | .4 | | | | | | |

Notes:

1. Sample rate for VOCs analysis = 0.1 - 0.2 L/minute
2. Sample rate for non-VOCs analysis = purge rate = 0.2 - 0.5 L/minute

Condition of Well:

Condition of Well: Good
Remarks: Dissolved Mercury sample was field filtered

FIELD EQUIPMENT

| FIELD EQUIPMENT | | Number of Bottles | |
|-------------------------|-------------------|-------------------------------|---------------------------------------------------------------------|
| pH Meter | Hydrolab | Serial Number | 41045 |
| Temperature Meter | Hydrolab | Serial Number | 41045 |
| Turbidity Meter | LAMOTTE | Serial Number | 02032 |
| Spec. Elec. Cond. Meter | Hydrolab | Serial Number | 41045 |
| ORP Meter | Hydrolab | Serial Number | 41045 |
| D.O. Meter | Hydrolab | Serial Number | 41045 |
| Interface Probe | Salinst | Serial Number | 25582 |
| PID/OVA | Mini-Rae | Serial Number | 00320 |
| Pump | Geo-pump | Serial Number | PIKE 2443 |
| Filter Apparatus | Geo — .45 microns | | |
| | | Field Notebook | pg. 20 |
| | | Sample Method | Low Flow |
| | | Discharge Water Containerized | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |

LOW-FLOW GROUNDWATER SAMPLING DATA SHEET

| | | | |
|--------------------------------------|-----------------------------------------------------------------------------------------|---------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| Well Name <u>W1-23</u> | Screen Interval <u>N/A</u> | Station Elevation <u> </u> GND <u> </u> TOC <u> </u> | Immiscible Phases Present <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Project <u>CTO 86</u> | Static Water Level (from TOC) / Time <u>1518-5.46</u> <u>1519-5.46</u> <u>1520-5.46</u> | | |
| Project No. <u>1990.086E</u> | Average Water Level (from TOC) <u>5.46</u> | | |
| Well Location <u>Moffett- Site 1</u> | Reference Point <u>TOC</u> | PID Readings (background) <u>0</u> PPM | |
| Sample Date <u>7-6-04</u> | Reference Elevation <u> </u> | PID Reading (TOC) <u>0</u> ppm | |
| Sampling Personnel <u>B. Ogle</u> | Static Elevation <u> </u> | Notes <u> </u> | |
| <u>M. Ramas</u> | Well Depth MEAS <u>5.72</u> RPTD <u> </u> | Feet of Water <u> </u> | |
| Sample ID <u>86-S1-021</u> | Depth of Bottom of Tubing <u>5.80</u> | | |
| Duplicate ID <u>N/A</u> | Depth to Water (w/ Tubing in Well) <u>5.46</u> | | |

[illegible]

Notes:

1. Purge rate = 0.2 - 0.5 L/minute
2. Drawdown shall be <0.33 foot

SAMPLE PARAMETERS

| SAMPLE PARAMETERS | | | | | | |
|-------------------|--|--|--|--|--|--|
| | | | | | | |

SAMPLE RATE

| SAMPLE RATE | | | | | | | |
|-------------|--|--|--|--|--|--|--|
| | | | | | | | |

Notes:

1. Sample rate for VOCs analysis = 0.1 - 0.2 L/minute
2. Sample rate for non-VOCs analysis = purge rate = 0.2 - 0.5 L/minute

Condition of Well: Good

Remarks: See note above

FIELD EQUIPMENT

pH Meter Hydrolab
 Temperature Meter Hydrolab
 Turbidity Meter La Motte
 Spec. Elec. Cond. Meter Hydrolab
 ORP Meter Hydrolab
 D.O. Meter Hydrolab
 Interface Probe Solinst
 PID/OVA Mini-Rae
 Pump Geo-pump
 Filter Apparatus Geo

Serial Number 41045
Serial Number 41045
Serial Number 02032
Serial Number 41045
Serial Number 41045
Serial Number 41045
Serial Number 25582
Serial Number 00320
Serial Number PINE 2443

Number of Bottles 0

Field Notebook pg 20

Sample Method Low flow

Discharge Water Containerized ☒ Yes ☐ No



TETRA TECH FW, INC.

LOW-FLOW GROUNDWATER
SAMPLING DATA SHEETPage 1 of 1Date 7-6-04Well Name W1-24Project CTO 86Project No. 1990.086EWell Location MOFFETT-SITE 1Sample Date 7-6-04Sampling Personnel B. OyleM. RamosSample ID 86-S1-028Duplicate ID N/AScreen Interval 6-16Station Elevation GND TOC Immiscible Phases Present ☐ Yes ☒ NoStatic Water Level (from TOC) / Time 1041 7.35 1042 7.36 1043 7.40Average Water Level (from TOC) 7.37Reference Point TOCPID Readings (background) 0 ppmReference Elevation PID Reading (TOC) 0 ppmStatic Elevation Notes Well Depth MEAS 20.25 RPTD Feet of Water Depth of Bottom of Tubing 11'Depth to Water (w/ Tubing in Well) 7.40

PURGING

| Time | Discharge Rate ¹ (L/min) | Dissolved Oxygen (mg/L) | pH | Eh/ORP (mV) | Temp. (°C) | Specific Conduct. (µmhos/cm at °C) | Turbidity (NTU) | Cumulative Volume of Water Removed/Purged (Gallons) | PID/OVA Reading | | Depth to Water ² (ft) | Comments |
|------|-------------------------------------|-------------------------|------|-------------|------------|------------------------------------|-----------------|-----------------------------------------------------|-----------------|-------|----------------------------------|----------|
| | | | | | | | | | Location | Value | | |
| 1040 | .4 | .96 | 6.55 | -170 | 28.19 | 24407 | 3.6 | .3 | | | 7.37 | |
| 1043 | .4 | .37 | 6.53 | -177 | 27.41 | 27400 | 3.6 | .6 | | | 7.38 | |
| 1046 | .4 | .29 | 6.53 | -175 | 27.12 | 28009 | 3.7 | 1.0 | | | 7.39 | |
| 1049 | .4 | .24 | 6.49 | -172 | 26.91 | 29660 | 3.4 | 1.2 | | | 7.39 | |
| 1052 | .4 | .23 | 6.47 | -168 | 26.66 | 30080 | 3.3 | 1.5 | | | 7.39 | |
| 1055 | .4 | .23 | 6.47 | -169 | 26.71 | 30074 | 3.4 | 1.8 | | | 7.40 | |
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Notes:

- Purge rate = 0.2 - 0.5 L/minute
- Drawdown shall be <0.33 foot

SAMPLE PARAMETERS

| | | | | | | | | | | | | |
|-----------|----------|--|--|--|--|--|--|--|--|--|--|--|
| 2 x SVOCs | 1 x A.Hg | | | | | | | | | | | |
|-----------|----------|--|--|--|--|--|--|--|--|--|--|--|

SAMPLE RATE

| | | | | | | | | | | | | |
|----|----|--|--|--|--|--|--|--|--|--|--|--|
| .4 | .4 | | | | | | | | | | | |
|----|----|--|--|--|--|--|--|--|--|--|--|--|

Notes:

- Sample rate for VOCs analysis = 0.1 - 0.2 L/minute
- Sample rate for non-VOCs analysis = purge rate = 0.2 - 0.5 L/minute

Condition of Well: GoodRemarks: Dissolved Mercury sample was field filtered

FIELD EQUIPMENT

pH Meter HydrolabTemperature Meter HydrolabTurbidity Meter LA MOTTESpec. Elec. Cond. Meter HydrolabORP Meter HydrolabD.O. Meter HydrolabInterface Probe SolinstPID/OVA Mini-RAEPump Geo-PumpFilter Apparatus Geo-.45 micronSerial Number 41045Serial Number 41045Serial Number 02032Serial Number 41045Serial Number 41045Serial Number 41045Serial Number 25582Serial Number 00320Serial Number PINE 2443Number of Bottles 3Field Notebook pg. 18Sample Method Low FlowDischarge Water Containerized ☒ Yes ☐ No

AUGUST 2004



TETRA TECH FW, INC.

LOW-FLOW GROUNDWATER SAMPLING DATA SHEET

Page 1 of 1Date 8/18/04

| | | | |
|---------------------------------------|-----------------------------------------------------------------------------------------|------------------------------------------------|-----------------------------------------------------------------------------------------------|
| Well Name <u>W1-1R</u> | Screen Interval <u>14.3-24.3</u> | Station Elevation <u>GND</u> TOC <u> </u> | Immiscible Phases Present <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Project <u>CTO 86-Site 1, R3/04</u> | Static Water Level (from TOC) / Time <u>8.41/0838</u> <u>8.41/0839</u> <u>8.41/0840</u> | Average Water Level (from TOC) <u> </u> | |
| Project No. <u>1990.086E</u> | Reference Point <u>TOC</u> | PID Readings (background) <u>0.000</u> | |
| Well Location <u>Moffett- Site 1</u> | Reference Elevation <u> </u> | PID Reading (TOC) <u>0.000</u> | |
| Sample Date <u>8/19/04</u> | Static Elevation <u> </u> | Notes <u> </u> | |
| Sampling Personnel <u>D. HARRISON</u> | Well Depth MEAS <u>27.45</u> RPTD <u> </u> | Feet of Water <u> </u> | |
| <u>M. RAMOS</u> | Depth of Bottom of Tubing <u>19.3</u> | | |
| Sample ID <u>86-S1-030</u> | Depth to Water (w/ Tubing in Well) <u>8.43</u> | | |
| Duplicate ID <u>N/A</u> | | | |

PURGING

| Time | Discharge Rate ¹ (L/min) | Dissolved Oxygen (mg/L) | pH | Eh/ORP (mV) | Temp. (°C) | Specific Conduct. (µmhos/cm at °C) | Turbidity (NTU) | Cumulative Volume of Water Removed/Purged (Gallons) | PID/OVA Reading | | Depth to Water ² (ft) | Comments |
|------|-------------------------------------|-------------------------|-----|-------------|------------|------------------------------------|-----------------|-----------------------------------------------------|-----------------|-------|----------------------------------|----------|
| | | | | | | | | | Location | Value | | |
| 1345 | .4 | 0.57 | 6.4 | -93 | 28.9 | 63411 | 5.8 | .2 | | | 8.45 | |
| 1348 | .4 | 0.31 | 6.4 | -95 | 28.6 | 61653 | 4.8 | .4 | | | 8.47 | |
| 1351 | .4 | 0.22 | 6.4 | -95 | 28.2 | 61340 | 4.7 | .6 | | | 8.48 | |
| 1354 | .4 | 0.20 | 6.4 | -95 | 28.0 | 61701 | 5.0 | .8 | | | 8.51 | |
| 1357 | .4 | 0.16 | 6.4 | -96 | 27.8 | 58562 | 5.2 | 1.0 | | | 8.51 | |
| 1400 | .4 | 0.14 | 6.4 | -97 | 27.9 | 60215 | 9.6 | 1.2 | | | 8.52 | |
| 1403 | .4 | 0.13 | 6.4 | -98 | 27.9 | 60752 | 8.9 | 1.4 | | | 8.52 | |
| 1405 | Collect Sample | | | | | | | | | | | |
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Notes:

- Purge rate = 0.2 - 0.5 L/minute
- Drawdown shall be <0.33 foot

SAMPLE PARAMETERS

| | | | | | | | | | | | | |
|---------|----------|--|--|--|--|--|--|--|--|--|--|--|
| 2XSVOCs | 1XD.MERC | | | | | | | | | | | |
|---------|----------|--|--|--|--|--|--|--|--|--|--|--|

SAMPLE RATE

| | | | | | | | | | | | | |
|----------|----------|--|--|--|--|--|--|--|--|--|--|--|
| .4 L/min | .4 L/min | | | | | | | | | | | |
|----------|----------|--|--|--|--|--|--|--|--|--|--|--|

Notes:

- Sample rate for VOCs analysis = 0.1 - 0.2 L/minute
- Sample rate for non-VOCs analysis = purge rate = 0.2 - 0.5 L/minute

Condition of Well: GoodRemarks: Clear / odorless water - Merc. samples were field filtered

FIELD EQUIPMENT

| | | |
|-----------------------------------------|-----------------------------|---------------------------------------------------------------------------------------------------|
| pH Meter <u>HYDROLAB</u> | Serial Number <u>#03682</u> | Number of Bottles <u>2X1LA</u> |
| Temperature Meter <u>HYDROLAB</u> | Serial Number <u>#03682</u> | <u>1X250mLP</u> |
| Turbidity Meter <u>HYDROLAB</u> | Serial Number <u>#03682</u> | |
| Spec. Elec. Cond. Meter <u>HYDROLAB</u> | Serial Number <u>#03682</u> | Field Notebook <u>Pg. 32</u> |
| ORP Meter <u>HYDROLAB</u> | Serial Number <u>#03682</u> | |
| D.O. Meter <u>HYDROLAB</u> | Serial Number <u>#03682</u> | Sample Method <u>Low Flow</u> |
| Interface Probe <u>SOLINST</u> | Serial Number <u>#25582</u> | |
| PID/OVA <u>MINI-RAE</u> | Serial Number <u>#00320</u> | |
| Pump <u>GEO-PUMP</u> | Serial Number <u>#03001</u> | |
| Filter Apparatus <u>GEO-45 MICRON</u> | | Discharge Water Containerized <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |



TETRA TECH FW, INC.

LOW-FLOW GROUNDWATER
SAMPLING DATA SHEETPage 1 of 1Date 8/18/04

| | | | |
|---------------------------------------|-----------------------------------------------------------------------------------------|--------------------------------------------|-----------------------------------------------------------------------------------------------|
| Well Name <u>W1-5</u> | Screen Interval <u>14.5-19.5</u> | Station Elevation <u>GND</u> TOC <u> </u> | Immiscible Phases Present <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Project <u>CTO 86-Site 1, R3/04</u> | Static Water Level (from TOC) / Time <u>5.83/0929</u> <u>5.83/0930</u> <u>5.83/0931</u> | | |
| Project No. <u>1990.086E</u> | Average Water Level (from TOC) <u>5.83</u> | | |
| Well Location <u>Moffett-Site 1</u> | Reference Point <u>TOC</u> | PID Readings (background) <u>0 ppm</u> | |
| Sample Date <u>8/19/04</u> | Reference Elevation <u> </u> | PID Reading (TOC) <u>0 ppm</u> | |
| Sampling Personnel <u>D. HARRISON</u> | Static Elevation <u> </u> | Notes <u> </u> | |
| <u>M. RAMOS</u> | Well Depth MEAS <u>21.33</u> RPTD <u> </u> | Feet of Water <u> </u> | |
| Sample ID <u>86-S1-038</u> | Depth of Bottom of Tubing <u>17</u> | | |
| Duplicate ID <u>86-S1-039</u> | Depth to Water (w/ Tubing in Well) <u>5.80</u> | | |

PURGING

| Time | Discharge Rate ¹ (L/min) | Dissolved Oxygen (mg/L) | pH | EH/ORP (mV) | Temp. (°C) | Specific Conduct. (µmhos/cm at °C) | Turbidity (NTU) | Cumulative Volume of Water Removed/Purged (Gallons) | PID/OVA Reading | | Depth to Water ² (ft) | Comments |
|------|-------------------------------------|-------------------------|-----|-------------|------------|------------------------------------|-----------------|-----------------------------------------------------|-----------------|-------|----------------------------------|----------|
| | | | | | | | | | Location | Value | | |
| 0918 | 0.1 | 1.04 | 7.2 | -62 | 22.4 | 19131 | 3.0 | 0.2 | | | 5.83 | |
| 0921 | 0.1 | 0.62 | 7.2 | -72 | 22.3 | 18791 | 2.9 | 0.4 | | | 5.90 | |
| 0924 | 0.1 | 0.40 | 7.3 | -76 | 22.5 | 18890 | 2.0 | 0.6 | | | 5.92 | |
| 0927 | 0.1 | 0.31 | 7.3 | -83 | 22.5 | 21780 | 2.0 | 0.8 | | | 5.91 | |
| 0930 | 0.1 | 0.26 | 7.3 | -99 | 22.4 | 21821 | 1.7 | 1.0 | | | 5.92 | |
| 0933 | 0.1 | 0.23 | 7.3 | -97 | 22.4 | 28856 | 1.7 | 1.2 | | | 5.92 | |
| 0935 | Collect | Sample | | | | | | | | | | |
| 0945 | Collect | Field Duplicate | | | | | | | | | | |
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Notes:

- Purge rate = 0.2 - 0.5 L/minute
- Drawdown shall be <0.33 foot

SAMPLE PARAMETERS

| | | | | | | | | | | | | |
|---------|----------|--|--|--|--|--|--|--|--|--|--|--|
| 4XSVOCS | 2XD.MERC | | | | | | | | | | | |
|---------|----------|--|--|--|--|--|--|--|--|--|--|--|

SAMPLE RATE

| | | | | | | | | | | | | |
|-----------|-----------|--|--|--|--|--|--|--|--|--|--|--|
| 0.1 L/min | 0.1 L/min | | | | | | | | | | | |
|-----------|-----------|--|--|--|--|--|--|--|--|--|--|--|

Notes:

- Sample rate for VOCs analysis = 0.1 - 0.2 L/minute
- Sample rate for non-VOCs analysis = purge rate = 0.2 - 0.5 L/minute

Condition of Well: GoodRemarks: Odorless/Colorless - Merc. Was Field Filtered

FIELD EQUIPMENT

| | | |
|-----------------------------------------|-----------------------------|---------------------------------------------------------------------------------------------------|
| pH Meter <u>HYDROLAB</u> | Serial Number <u>#03682</u> | Number of Bottles <u>4X1LA</u> |
| Temperature Meter <u>HYDROLAB</u> | Serial Number <u>#03682</u> | <u>2X250mLP</u> |
| Turbidity Meter <u>HYDROLAB</u> | Serial Number <u>#03682</u> | |
| Spec. Elec. Cond. Meter <u>HYDROLAB</u> | Serial Number <u>#03682</u> | Field Notebook <u>Pg. 29 + 30</u> |
| ORP Meter <u>HYDROLAB</u> | Serial Number <u>#03682</u> | |
| D.O. Meter <u>HYDROLAB</u> | Serial Number <u>#03682</u> | Sample Method <u>Low Flow</u> |
| Interface Probe <u>SOLINST</u> | Serial Number <u>#25582</u> | |
| PID/OVA <u>MINI-RAE</u> | Serial Number <u>#00320</u> | |
| Pump <u>GEO-PUMP</u> | Serial Number <u>#03001</u> | |
| Filter Apparatus <u>GEO-45 MICRON</u> | | Discharge Water Containerized <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |



TETRA TECH FW, INC.

LOW-FLOW GROUNDWATER
SAMPLING DATA SHEETPage 1 of 1Date 8/18/04

| | | | |
|---------------------------------------|----------------------------------------------------------------------------------------|---------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| Well Name <u>W1-8</u> | Screen Interval <u>13-18</u> | Station Elevation <u> </u> GND <u> </u> TOC <u> </u> | Immiscible Phases Present <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Project <u>CTO 86-Site 1, R3/04</u> | Static Water Level (from TOC) / Time <u>5.89/0933</u> <u>5.89/934</u> <u>5.89/0935</u> | | |
| Project No. <u>1990.086E</u> | Average Water Level (from TOC) <u>5.89</u> | | |
| Well Location <u>Moffett- Site 1</u> | Reference Point <u>TOC</u> | PID Readings (background) <u>0.4 ppm</u> | |
| Sample Date <u>8/19/04</u> | Reference Elevation <u> </u> | PID Reading (TOC) <u>0.4 ppm</u> | |
| Sampling Personnel <u>D. HARRISON</u> | Static Elevation <u> </u> | Notes <u> </u> | |
| <u>M. RAMOS</u> | Well Depth MEAS <u>22.67</u> RPTD <u> </u> | Feet of Water <u> </u> | |
| Sample ID <u>86-S1-040</u> | Depth of Bottom of Tubing <u>15.5</u> | | |
| Duplicate ID <u>N/A</u> | Depth to Water (w/ Tubing in Well) <u>5.89</u> | | |

PURGING

| Time | Discharge Rate ¹ (L/min) | Dissolved Oxygen (mg/L) | pH | EH/ORP (mV) | Temp. (°C) | Specific Conduct. (µmhos/cm at °C) | Turbidity (NTU) | Cumulative Volume of Water Removed/Purged (Gallons) | PID/OVA Reading | | Depth to Water ² (ft) | Comments |
|------|-------------------------------------|-------------------------|-----|-------------|------------|------------------------------------|-----------------|-----------------------------------------------------|-----------------|--|----------------------------------|----------|
| 1003 | .1 | 0.73 | 7.0 | -28 | 26.9 | 57180 | 4.3 | .1 | | | 5.92 | |
| 1007 | .1 | 0.38 | 7.2 | -32 | 26.0 | 59456 | 3.1 | .3 | | | 5.93 | |
| 1009 | .4 | 0.23 | 7.2 | -42 | 25.3 | 61245 | 3.3 | .5 | | | 5.95 | |
| 1012 | .4 | 0.19 | 7.3 | -55 | 25.0 | 62247 | 2.9 | .7 | | | 5.95 | |
| 1015 | .1 | 0.17 | 7.2 | -60 | 24.8 | 61872 | 2.2 | .9 | | | 5.95 | |
| 1018 | .4 | 0.16 | 7.2 | -58 | 24.8 | 61763 | 2.9 | 1.1 | | | 5.96 | |
| 1020 | Collect Sample | | | | | | | | | | | |
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Notes:

- Purge rate = 0.2 - 0.5 L/minute
- Drawdown shall be <0.33 foot

SAMPLE PARAMETERS

| | | | | | | | | | | | | |
|---------|----------|--|--|--|--|--|--|--|--|--|--|--|
| 2XSVOCS | 1XD.MERC | | | | | | | | | | | |
|---------|----------|--|--|--|--|--|--|--|--|--|--|--|

SAMPLE RATE

| | | | | | | | | | | | | |
|----------|----------|--|--|--|--|--|--|--|--|--|--|--|
| .1 L/min | .4 L/min | | | | | | | | | | | |
|----------|----------|--|--|--|--|--|--|--|--|--|--|--|

Notes:

- Sample rate for VOCs analysis = 0.1 - 0.2 L/minute
- Sample rate for non-VOCs analysis = purge rate = 0.2 - 0.5 L/minute

Condition of Well: GoodRemarks: Clear/odorless water - Merc. was field filtered

FIELD EQUIPMENT

| | | |
|-----------------------------------------|-----------------------------|---------------------------------------------------------------------------------------------------|
| pH Meter <u>HYDROLAB</u> | Serial Number <u>#03682</u> | Number of Bottles <u>2X1LA</u> |
| Temperature Meter <u>HYDROLAB</u> | Serial Number <u>#03682</u> | <u>1X250mLP</u> |
| Turbidity Meter <u>HYDROLAB</u> | Serial Number <u>#03682</u> | |
| Spec. Elec. Cond. Meter <u>HYDROLAB</u> | Serial Number <u>#03682</u> | Field Notebook <u>Pg. 30</u> |
| ORP Meter <u>HYDROLAB</u> | Serial Number <u>#03682</u> | |
| D.O. Meter <u>HYDROLAB</u> | Serial Number <u>#03682</u> | Sample Method <u>Low Flow</u> |
| Interface Probe <u>SOLINST</u> | Serial Number <u>#25582</u> | |
| PID/OVA <u>MINI-RAE</u> | Serial Number <u>#00320</u> | |
| Pump <u>GEO-PUMP</u> | Serial Number <u>#03001</u> | |
| Filter Apparatus <u>GEO-45 MICRON</u> | | Discharge Water Containerized <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |

| | | |
|---------------------------------------|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| Well Name <u>W1-14</u> | Screen Interval <u>4.1-14.1</u> | |
| Project <u>CTO 86-Site 1, R3/04</u> | Station Elevation <u>GND</u> TOC <u> </u> | Immiscible Phases Present <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Project No. <u>1990.086E</u> | Static Water Level (from TOC) / Time <u>5.95/0910</u> <u>5.95/0911</u> <u>5.95/0912</u> | |
| Well Location <u>Moffett- Site 1</u> | Average Water Level (from TOC) <u>5.95</u> | |
| Sample Date <u>8/18/04</u> | Reference Point <u>TOC</u> | PID Readings (background) <u>Open</u> |
| Sampling Personnel <u>D. HARRISON</u> | Reference Elevation <u> </u> | PID Reading (TOC) <u>Open</u> |
| <u>M. RAMOS</u> | Static Elevation <u> </u> | Notes <u> </u> |
| | Well Depth MEAS <u>17.68</u> RPTD <u> </u> | Feet of Water <u> </u> |
| Sample ID <u>86-S1-034</u> | Depth of Bottom of Tubing <u>9.1</u> | |
| Duplicate ID <u>N/A</u> | Depth to Water (w/ Tubing in Well) <u>5.95</u> | |

[illegible]

Notes:

1. Purge rate = 0.2 - 0.5 L/minute
2. Drawdown shall be <0.33 foot

SAMPLE PARAMETERS

| | | | | | | |
|---------|----------|--|--|--|--|--|
| 2XSVOCs | 1XD.MERC | | | | | |
|---------|----------|--|--|--|--|--|

SAMPLE RATE

| | | | | | | | |
|-------|-------|--|--|--|--|--|--|
| 4 L/4 | 4 L/4 | | | | | | |
|-------|-------|--|--|--|--|--|--|

Notes:

1. Sample rate for VOCs analysis = 0.1 - 0.2 L/minute
2. Sample rate for non-VOCs analysis = purge rate = 0.2 - 0.5 L/minute

Condition of Well: *Good*

Remarks: odorless - Merc. was field filtered

FIELD EQUIPMENT

| | |
|-------------------------|---------------|
| pH Meter | HYDROLAB |
| Temperature Meter | HYDROLAB |
| Turbidity Meter | HYDROLAB |
| Spec. Elec. Cond. Meter | HYDROLAB |
| ORP Meter | HYDROLAB |
| D.O. Meter | HYDROLAB |
| Interface Probe | SOLINST |
| PID/OVA | MINI-RAE |
| Pump | GEO-PUMP |
| Filter Apparatus | GEO-45 MICRON |

| | |
|---------------|--------|
| Serial Number | #03682 |
| Serial Number | #03682 |
| Serial Number | #03682 |
| Serial Number | #03682 |
| Serial Number | #03682 |
| Serial Number | #03682 |
| Serial Number | #25582 |
| Serial Number | #00320 |
| Serial Number | #03001 |

Number of Bottles 2X1LA
1X250mLP

Field Notebook Pg. 27

Sample Method Low Flow

Discharge Water Containerized ☒ Yes ☐ No



TETRA TECH FW, INC.

LOW-FLOW GROUNDWATER SAMPLING DATA SHEET

Page 1 of 1Date 8/18/04

| | | | |
|---------------------------------------|-----------------------------------------------------------------------------------------|--------------------------------------------------|-----------------------------------------------------------------------------------------------|
| Well Name <u>W1-15</u> | Screen Interval <u>4.4-14.4</u> | Station Elevation <u>GND</u> TOC <u> </u> | Immiscible Phases Present <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Project <u>CTO 86-Site 1, R3/04</u> | Static Water Level (from TOC) / Time <u>6.09/0843</u> <u>6.09/0844</u> <u>6.09/0845</u> | Average Water Level (from TOC) <u>6.09</u> | |
| Project No. <u>1990.086E</u> | Reference Point <u>TOC</u> | PID Readings (background) <u>0.00</u> | |
| Well Location <u>Moffett-Site 1</u> | Reference Elevation <u> </u> | PID Reading (TOC) <u>0.00</u> | |
| Sample Date <u>8/18/04</u> | Static Elevation <u> </u> | Notes <u> </u> | |
| Sampling Personnel <u>D. HARRISON</u> | Well Depth MEAS <u>17.45</u> RPTD <u> </u> | Feet of Water <u> </u> | |
| <u>M. RAMOS</u> | Depth of Bottom of Tubing <u>9.4</u> | | |
| Sample ID <u>86-S1-031</u> | Depth to Water (w/ Tubing in Well) <u>6.09</u> | | |
| Duplicate ID <u>N/A</u> | | | |

PURGING

| Time | Discharge Rate ¹ (L/min) | Dissolved Oxygen (mg/L) | pH | Eh/ORP (mV) | Temp. (°C) | Specific Conduct. (µmhos/cm at °C) | Turbidity (NTU) | Cumulative Volume of Water Removed/Purged (Gallons) | PID/OVA Reading | | Depth to Water ² (ft) | Comments |
|------|-------------------------------------|-------------------------|-----|-------------|------------|------------------------------------|-----------------|-----------------------------------------------------|-----------------|-------|----------------------------------|----------|
| | | | | | | | | | Location | Value | | |
| 1000 | .4 | 0.77 | 6.9 | -209 | 27.3 | 26205 | 3.2 | .1 | | | 6.11 | |
| 1003 | .4 | 0.20 | 7.2 | -247 | 26.7 | 28762 | 2.7 | .3 | | | 6.14 | |
| 1006 | .4 | 0.15 | 7.2 | -245 | 26.5 | 33831 | 1.7 | .5 | | | 6.15 | |
| 1009 | .4 | 0.11 | 7.3 | -248 | 26.7 | 57655 | 1.2 | .7 | | | 6.18 | |
| 1012 | .4 | 0.09 | 7.3 | -257 | 27.0 | 58587 | 1.2 | .9 | | | 6.18 | |
| 1015 | .4 | 0.08 | 7.4 | -262 | 27.2 | 60314 | 3.1 | 1.1 | | | 6.19 | |
| 1018 | Collect Sample | | | | | | | | | | | |
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Notes:

- Purge rate = 0.2 - 0.5 L/minute
- Drawdown shall be <0.33 foot

SAMPLE PARAMETERS

| | | | | | | | |
|---------|----------|--|--|--|--|--|--|
| 2XSVOcs | 1XD.MERC | | | | | | |
|---------|----------|--|--|--|--|--|--|

SAMPLE RATE

| | | | | | | | |
|----------|----------|--|--|--|--|--|--|
| .4 L/min | .4 L/min | | | | | | |
|----------|----------|--|--|--|--|--|--|

Notes:

- Sample rate for VOCs analysis = 0.1 - 0.2 L/minute
- Sample rate for non-VOCs analysis = purge rate = 0.2 - 0.5 L/minute

Condition of Well: GoodRemarks: Black, turbid water (lg. particles) - Sulphur odor - Merc. was Field Filtered

FIELD EQUIPMENT

| | | |
|-----------------------------------------|-----------------------------|---------------------------------------------------------------------------------------------------|
| pH Meter <u>HYDROLAB</u> | Serial Number <u>#03682</u> | Number of Bottles <u>2X1LA</u> |
| Temperature Meter <u>HYDROLAB</u> | Serial Number <u>#03682</u> | <u>1X250mLP</u> |
| Turbidity Meter <u>HYDROLAB</u> | Serial Number <u>#03682</u> | |
| Spec. Elec. Cond. Meter <u>HYDROLAB</u> | Serial Number <u>#03682</u> | Field Notebook <u>Pg. 26</u> |
| ORP Meter <u>HYDROLAB</u> | Serial Number <u>#03682</u> | |
| D.O. Meter <u>HYDROLAB</u> | Serial Number <u>#03682</u> | Sample Method <u>Low Flow</u> |
| Interface Probe <u>SOLINST</u> | Serial Number <u>#25582</u> | |
| PID/OVA <u>MINI-RAE</u> | Serial Number <u>#00320</u> | |
| Pump <u>GEO-PUMP</u> | Serial Number <u>#03001</u> | |
| Filter Apparatus <u>GEO-45 MICRON</u> | | Discharge Water Containerized <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |



TETRA TECH FW, INC.

LOW-FLOW GROUNDWATER SAMPLING DATA SHEET

Page 1 of 1Date 8/18/04

| | | |
|---------------------------------------|-----------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| Well Name <u>W1-16</u> | Screen Interval <u>5.4-15.4</u> | Station Elevation <u>GND</u> TOC <u>Immiscible Phases Present</u> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Project <u>CTO 86-Site 1, R3/04</u> | Static Water Level (from TOC) / Time <u>7.75/0941</u> <u>7.75/0942</u> <u>7.75/0943</u> | |
| Project No. <u>1990.086E</u> | Average Water Level (from TOC) <u>7.75</u> | |
| Well Location <u>Moffett-Site 1</u> | Reference Point <u>TOC</u> | PID Readings (background) <u>0 ppm</u> |
| Sample Date <u>8/19/04</u> | Reference Elevation <u></u> | PID Reading (TOC) <u>0 ppm</u> |
| Sampling Personnel <u>D. HARRISON</u> | Static Elevation <u></u> | Notes <u></u> |
| <u>M. RAMOS</u> | Well Depth MEAS <u>18.25</u> RPTD <u></u> | Feet of Water <u></u> |
| Sample ID <u>86-S1-042</u> | Depth of Bottom of Tubing <u>10.4</u> | |
| Duplicate ID <u>N/A</u> | Depth to Water (w/ Tubing in Well) <u>7.50</u> | |

PURGING

| Time | Discharge Rate ¹ (L/min) | Dissolved Oxygen (mg/L) | pH | Eh/ORP (mV) | Temp. (°C) | Specific Conduct. (µmhos/cm at °C) | Turbidity (NTU) | Cumulative Volume of Water Removed/Purged (Gallons) | PID/OVA Reading Location | Value | Depth to Water ² (ft) | Comments |
|------|-------------------------------------|-------------------------|-----|-------------|------------|------------------------------------|-----------------|-----------------------------------------------------|--------------------------|-------|----------------------------------|----------|
| 1245 | .4 | 1.63 | 7.1 | -53 | 28.9 | 71084 | 10.8 | .1 | | | 7.55 | |
| 1248 | .4 | 0.80 | 7.0 | -47 | 29.0 | 55367 | 6.8 | .3 | | | 7.56 | |
| 1251 | .4 | 0.43 | 6.9 | -47 | 29.1 | 39721 | 7.2 | .5 | | | 7.57 | |
| 1254 | .4 | 0.35 | 6.8 | -51 | 29.0 | 31164 | 7.7 | .7 | | | 7.59 | |
| 1257 | .4 | 0.23 | 6.9 | -58 | 28.8 | 32604 | 8.3 | 1.0 | | | 7.59 | |
| 1300 | .4 | 0.20 | 6.9 | -62 | 28.6 | 34502 | 7.4 | 1.2 | | | 7.60 | |
| 1303 | .4 | 0.19 | 6.9 | -64 | 28.6 | 34505 | 7.2 | 1.4 | | | 7.60 | |
| 1305 | Collect Sample | | | | | | | | | | | |
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Notes:

1. Purge rate = 0.2 - 0.5 L/minute

2. Drawdown shall be <0.33 foot

SAMPLE PARAMETERS

| | | | | | | | |
|---------|----------|--|--|--|--|--|--|
| 2XSVOcs | 1XD.MERC | | | | | | |
|---------|----------|--|--|--|--|--|--|

SAMPLE RATE

| | | | | | | | |
|----------|----------|--|--|--|--|--|--|
| .4 L/min | .4 L/min | | | | | | |
|----------|----------|--|--|--|--|--|--|

Notes:

1. Sample rate for VOCs analysis = 0.1 - 0.2 L/minute

2. Sample rate for non-VOCs analysis = purge rate = 0.2 - 0.5 L/minute

Condition of Well: GoodRemarks: H2S odor - Merc. 10x15 Field Filtered

FIELD EQUIPMENT

| | | |
|-----------------------------------------|-----------------------------|---------------------------------------------------------------------------------------------------|
| pH Meter <u>HYDROLAB</u> | Serial Number <u>#03682</u> | Number of Bottles <u>2X1LA</u> |
| Temperature Meter <u>HYDROLAB</u> | Serial Number <u>#03682</u> | <u>1X250mLP</u> |
| Turbidity Meter <u>HYDROLAB</u> | Serial Number <u>#03682</u> | |
| Spec. Elec. Cond. Meter <u>HYDROLAB</u> | Serial Number <u>#03682</u> | Field Notebook <u>Pgs 31+32</u> |
| ORP Meter <u>HYDROLAB</u> | Serial Number <u>#03682</u> | |
| D.O. Meter <u>HYDROLAB</u> | Serial Number <u>#03682</u> | Sample Method <u>Low Flow</u> |
| Interface Probe <u>SOLINST</u> | Serial Number <u>#25582</u> | |
| PID/OVA <u>MINI-RAE</u> | Serial Number <u>#00320</u> | |
| Pump <u>GEO-PUMP</u> | Serial Number <u>#03001</u> | |
| Filter Apparatus <u>GEO-45 MICRON</u> | | Discharge Water Containerized <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |



TETRA TECH FW, INC.

LOW-FLOW GROUNDWATER
SAMPLING DATA SHEETPage 1 of 1Date 8/18/04Well Name W1-19Project CTO 86-Site 1, R3/04Project No. 1990.086EWell Location Moffett- Site 1Sample Date 8/18/04Sampling Personnel D. HARRISONM. RAMOSSample ID 86-S1-032Duplicate ID N/AScreen Interval 14-19Station Elevation GND TOC Immiscible Phases Present ☐ Yes ☒ NoStatic Water Level (from TOC) / Time 4.55/0906 4.55/0907 4.55/0908Average Water Level (from TOC) 4.55Reference Point TOCPID Readings (background) 0 ppmReference Elevation PID Reading (TOC) 0 ppmStatic Elevation Notes Well Depth MEAS 21.34 RPTD Feet of Water Depth of Bottom of Tubing 16.5Depth to Water (w/ Tubing in Well) 4.55

PURGING

| Time | Discharge Rate ¹ (L/min) | Dissolved Oxygen (mg/L) | pH | Eh/ORP (mV) | Temp. (°C) | Specific Conduct. (µmhos/cm at °C) | Turbidity (NTU) | Cumulative Volume of Water Removed/Purged (Gallons) | PID/OVA Reading | | Depth to Water ² (ft) | Comments |
|------|-------------------------------------|-------------------------|-----|-------------|------------|------------------------------------|-----------------|-----------------------------------------------------|-----------------|-------|----------------------------------|----------|
| | | | | | | | | | Location | Value | | |
| 1050 | .4 | 0.30 | 7.0 | 6 | 27.0 | 61064 | 3.9 | .2 | | | 4.56 | |
| 1053 | .4 | 0.18 | 7.0 | -21 | 26.5 | 60027 | 3.6 | .4 | | | 4.58 | |
| 1056 | .4 | 0.14 | 7.0 | -20 | 26.0 | 65764 | 2.7 | .6 | | | 4.61 | |
| 1059 | .4 | 0.12 | 7.0 | -20 | 25.7 | 62230 | 1.2 | .8 | | | 4.61 | |
| 1102 | .4 | 0.12 | 6.9 | -18 | 25.5 | 61992 | 1.4 | 1.0 | | | 4.63 | |
| 1105 | Collected Sample | | | | | | | | | | | |
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Notes:

1. Purge rate = 0.2 - 0.5 L/minute

2. Drawdown shall be <0.33 foot

SAMPLE PARAMETERS

| | | | | | | | | | | | | |
|---------|----------|--|--|--|--|--|--|--|--|--|--|--|
| 2XSVOcs | 1XD.MERC | | | | | | | | | | | |
|---------|----------|--|--|--|--|--|--|--|--|--|--|--|

SAMPLE RATE

| | | | | | | | | | | | | |
|----------|----------|--|--|--|--|--|--|--|--|--|--|--|
| .4 L/min | .4 L/min | | | | | | | | | | | |
|----------|----------|--|--|--|--|--|--|--|--|--|--|--|

Notes:

1. Sample rate for VOCs analysis = 0.1 - 0.2 L/minute

2. Sample rate for non-VOCs analysis = purge rate = 0.2 - 0.5 L/minute

Condition of Well: GoodRemarks: Odorless - Merc. was field Filtered

FIELD EQUIPMENT

pH Meter HYDROLABSerial Number #03682Number of Bottles 2X1LATemperature Meter HYDROLABSerial Number #036821X250mLPTurbidity Meter HYDROLABSerial Number #03682Field Notebook Pg. 26Spec. Elec. Cond. Meter HYDROLABSerial Number #03682Sample Method Low FlowORP Meter HYDROLABSerial Number #03682D.O. Meter HYDROLABSerial Number #03682Interface Probe SOLINSTSerial Number #25582PID/OVA MINI-RAESerial Number #00320Pump GEO-PUMPSerial Number #03001Filter Apparatus GEO-45 MICRONDischarge Water Containerized ☒ Yes ☐ No



TETRA TECH FW, INC.

LOW-FLOW GROUNDWATER
SAMPLING DATA SHEETPage 1 of 1Date 8/18/04

| | | |
|---------------------------------------|-----------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| Well Name <u>W1-22</u> | Screen Interval <u>N/A</u> | Station Elevation <u>GND</u> TOC <u>Immiscible Phases Present</u> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Project <u>CTO 86-Site 1, R3/04</u> | Static Water Level (from TOC) / Time <u>3.73/0924</u> <u>3.73/0925</u> <u>3.72/0926</u> | Average Water Level (from TOC) <u>3.73</u> |
| Project No. <u>1990.086E</u> | Reference Point <u>TOC</u> | PID Readings (background) <u>0.00u</u> |
| Well Location <u>Moffett- Site 1</u> | Reference Elevation <u></u> | PID Reading (TOC) <u>0.00u</u> |
| Sample Date <u>8/19/04</u> | Static Elevation <u></u> | Notes <u></u> |
| Sampling Personnel <u>D. HARRISON</u> | Well Depth MEAS <u>6.70</u> RPTD <u></u> | Feet of Water <u></u> |
| <u>M. RAMOS</u> | Depth of Bottom of Tubing <u>6.0</u> | |
| Sample ID <u>86-S1-037</u> | Depth to Water (w/ Tubing in Well) <u>3.71</u> | |
| Duplicate ID <u>MS/MSD</u> | | |

PURGING

| Time | Discharge Rate ¹ (L/min) | Dissolved Oxygen (mg/L) | pH | EH/ORP (mV) | Temp. (°C) | Specific Conduct. (µmhos/cm at °C) | Turbidity (NTU) | Cumulative Volume of Water Removed/Purged (Gallons) | PID/OVA Reading | | Depth to Water ² (ft) | Comments |
|------|-------------------------------------|-------------------------|-----|-------------|------------|------------------------------------|-----------------|-----------------------------------------------------|-----------------|-------|----------------------------------|----------|
| | | | | | | | | | Location | Value | | |
| 0828 | .7 | 1.03 | 7.1 | -62 | 19.4 | 35061 | 2.5 | .2 | | | 3.73 | |
| 0831 | .7 | 0.72 | 7.2 | -73 | 19.6 | 31860 | 2.0 | .4 | | | 3.75 | |
| 0834 | .7 | 0.47 | 7.2 | -79 | 19.9 | 32131 | 1.7 | .6 | | | 3.78 | |
| 0837 | .7 | 0.39 | 7.3 | -81 | 20.1 | 33408 | 1.8 | .8 | | | 3.82 | |
| 0840 | .7 | 0.34 | 7.3 | -83 | 20.3 | 34797 | 1.9 | 1.0 | | | 3.86 | |
| 0843 | .7 | 0.36 | 7.3 | -87 | 20.3 | 34688 | 2.1 | 1.2 | | | 3.88 | |
| 0845 | Collect | Sample | | | | | | | | | | |
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Notes:

- Purge rate = 0.2 - 0.5 L/minute
- Drawdown shall be <0.33 foot

SAMPLE PARAMETERS

| | | | | | | | |
|---------|----------|--|--|--|--|--|--|
| 6XSVOCs | 3XD.MERC | | | | | | |
|---------|----------|--|--|--|--|--|--|

SAMPLE RATE

| | | | | | | | |
|----------|----------|--|--|--|--|--|--|
| .7 L/min | .7 L/min | | | | | | |
|----------|----------|--|--|--|--|--|--|

Notes:

- Sample rate for VOCs analysis = 0.1 - 0.2 L/minute
- Sample rate for non-VOCs analysis = purge rate = 0.2 - 0.5 L/minute

Condition of Well: Good - Collection TrenchRemarks: H2S odor / Black, turbid water (lg particles) - Merc. was field filtered

FIELD EQUIPMENT

| | | |
|-----------------------------------------|-----------------------------|---------------------------------------------------------------------------------------------------|
| pH Meter <u>HYDROLAB</u> | Serial Number <u>#03682</u> | Number of Bottles <u>6 X1LA</u> |
| Temperature Meter <u>HYDROLAB</u> | Serial Number <u>#03682</u> | <u>3X250mLP</u> |
| Turbidity Meter <u>HYDROLAB</u> | Serial Number <u>#03682</u> | Field Notebook <u>Pg. 29</u> |
| Spec. Elec. Cond. Meter <u>HYDROLAB</u> | Serial Number <u>#03682</u> | Sample Method <u>Low Flow</u> |
| ORP Meter <u>HYDROLAB</u> | Serial Number <u>#03682</u> | |
| D.O. Meter <u>HYDROLAB</u> | Serial Number <u>#03682</u> | |
| Interface Probe <u>SOLINST</u> | Serial Number <u>#25582</u> | |
| PID/OVA <u>MINI-RAE</u> | Serial Number <u>#00320</u> | |
| Pump <u>GEO-PUMP</u> | Serial Number <u>#03001</u> | |
| Filter Apparatus <u>GEO- 45 MICRON</u> | | Discharge Water Containerized <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |



TETRA TECH FW, INC.

LOW-FLOW GROUNDWATER
SAMPLING DATA SHEETPage 1 of 1Date 8/18/04Well Name W1-23Project CTO 86-Site 1, R3/04Project No. 1990.086EWell Location Moffett- Site 1

Sample Date _____

Sampling Personnel D. HARRISONM. RAMOSScreen Interval N/AStation Elevation GND TOC _____Static Water Level (from TOC) / Time 5.30/0915 5.30/0916 5.30/0917Average Water Level (from TOC) 5.30Reference Point TOC

Reference Elevation _____

Static Elevation _____

Well Depth MEAS 6.0 RPTD _____Depth of Bottom of Tubing 5.8Depth to Water (w/ Tubing in Well) 5.30Immiscible Phases Present ☐ Yes ☒ NoPID Readings (background) OpenPID Reading (TOC) Open

Notes _____

Feet of Water _____

Sample ID 86-S1-033Duplicate ID N/A

PURGING

| Time | Discharge Rate ¹ (L/min) | Dissolved Oxygen (mg/L) | pH | Eh/ORP (mV) | Temp. (°C) | Specific Conduct. (µmhos/cm at °C) | Turbidity (NTU) | Cumulative Volume of Water Removed/Purged (Gallons) | PID/OVA Reading | | Depth to Water ² (ft) | Comments | |
|------|--------------------------------------|-------------------------|------|-------------|------------|------------------------------------|-----------------|-----------------------------------------------------|-----------------|-------|----------------------------------|----------|--|
| | | | | | | | | | Location | Value | | | |
| 1313 | .3 | 0.41 | 6.91 | -18 | 28.32 | 100,000 | 1000+ | .1 | | | 5.35 | | |
| 1315 | .3 | 0.37 | 6.89 | -2 | 27.99 | 100,000 | 1000+ | .3 | | | 5.47 | | |
| 1318 | .3 | 0.33 | 6.87 | 20 | 27.95 | 100,000 | 190 | .4 | | | 5.67 | | |
| 1321 | .3 | 0.31 | 6.85 | 35 | 27.86 | 100,000 | 104.7 | .5 | | | 5.72 | | |
| 1324 | .3 | 0.30 | 6.85 | 48 | 27.67 | 100,000 | 73.9 | .7 | | | 5.78 | | |
| 1325 | Trench ran dry - No sample collected | | | | | | | | | | | 5.82 | |
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Notes:

- Purge rate = 0.2 - 0.5 L/minute
- Drawdown shall be <0.33 foot

SAMPLE PARAMETERS

| | | | | | | | | | | | | |
|---------|----------|--|--|--|--|--|--|--|--|--|--|--|
| 2XSVOcs | 1XD.MERC | | | | | | | | | | | |
|---------|----------|--|--|--|--|--|--|--|--|--|--|--|

SAMPLE RATE

| | | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|--|--|
| | | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|--|--|

Notes:

- Sample rate for VOCs analysis = 0.1 - 0.2 L/minute
- Sample rate for non-VOCs analysis = purge rate = 0.2 - 0.5 L/minute

Condition of Well: GoodRemarks: H₂S odor / extremely turbid - dk. green - Trench ran dry

FIELD EQUIPMENT

pH Meter HYDROLABSerial Number #03682Number of Bottles 2X1LATemperature Meter HYDROLABSerial Number #036821X250mLPTurbidity Meter HYDROLABSerial Number #03682Spec. Elec. Cond. Meter HYDROLABSerial Number #03682Field Notebook Pg. 27ORP Meter HYDROLABSerial Number #03682D.O. Meter HYDROLABSerial Number #03682Sample Method Low FlowInterface Probe SOLINSTSerial Number #25582PID/OVA MINI-RAESerial Number #00320Pump GEO-PUMPSerial Number #03001Filter Apparatus GEO-45 MICRONDischarge Water Containerized ☒ Yes ☐ No



TETRA TECH FW, INC.

LOW-FLOW GROUNDWATER SAMPLING DATA SHEET

Page 1 of 1Date 8/18/04

| | | | | |
|---------------------------------------|-------------------------------------------------------|--------------------------------------------|----------------------|-----------------------------------------------------------------------------------------------|
| Well Name <u>W1-24</u> | Screen Interval <u>6-16</u> | Station Elevation <u>GND</u> | TOC <u>7.50/0937</u> | Immiscible Phases Present <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Project <u>CTO 86-Site 1, R3/04</u> | Static Water Level (from TOC) / Time <u>7.50/0937</u> | Average Water Level (from TOC) <u>7.50</u> | | |
| Project No. <u>1990.086E</u> | Reference Point <u>TOC</u> | PID Readings (background) <u>0ppm</u> | | |
| Well Location <u>Moffett- Site 1</u> | Reference Elevation <u></u> | PID Reading (TOC) <u>0ppm</u> | | |
| Sample Date <u>8/19/04</u> | Static Elevation <u></u> | Notes <u></u> | | |
| Sampling Personnel <u>D. HARRISON</u> | Well Depth MEAS <u>20.26</u> | RPTD <u></u> | | |
| <u>M. RAMOS</u> | Depth of Bottom of Tubing <u>11</u> | Feet of Water <u></u> | | |
| Sample ID <u>86-S1-041</u> | Depth to Water (w/ Tubing in Well) <u>7.53</u> | | | |
| Duplicate ID <u>N/A</u> | | | | |

PURGING

| Time | Discharge Rate ¹ (L/min) | Dissolved Oxygen (mg/L) | pH | EH/ORP (mV) | Temp. (°C) | Specific Conduct. (µmhos/cm at °C) | Turbidity (NTU) | Cumulative Volume of Water Removed/Purged (Gallons) | PID/OVA Reading Location | PID/OVA Reading Value | Depth to Water ² (ft) | Comments |
|------|-------------------------------------|-------------------------|-----|-------------|------------|------------------------------------|-----------------|-----------------------------------------------------|--------------------------|-----------------------|----------------------------------|----------|
| 1044 | .4 | 0.58 | 7.4 | -119 | 26.1 | 62072 | 4.5 | .2 | | | 7.54 | |
| 1047 | .4 | 0.42 | 7.4 | -124 | 25.9 | 60830 | 4.0 | .4 | | | 7.56 | |
| 1050 | .4 | 0.28 | 7.4 | -125 | 25.3 | 62537 | 4.0 | .6 | | | 7.58 | |
| 1053 | .4 | 0.17 | 7.3 | -119 | 25.0 | 62741 | 13.1 | .8 | | | 7.61 | |
| 1056 | .4 | 0.16 | 7.3 | -113 | 24.9 | 63355 | 15.6 | 1.0 | | | 7.64 | |
| 1059 | .4 | 0.14 | 7.3 | -115 | 24.8 | 63511 | 16.3 | 1.2 | | | 7.66 | |
| 1102 | .4 | 0.13 | 7.3 | -110 | 24.7 | 64162 | 11.0 | 1.4 | | | 7.67 | |
| 1105 | .4 | 0.13 | 7.2 | -105 | 24.8 | 63037 | 8.4 | 1.6 | | | 7.68 | |
| 1108 | .4 | 0.13 | 7.2 | -102 | 24.9 | 63644 | 5.6 | 1.8 | | | 7.68 | |
| 1111 | .4 | 0.12 | 7.2 | -102 | 24.9 | 64120 | 4.2 | 2.0 | | | 7.68 | |
| 1120 | Collect Sample | | | | | | | | | | | |

Notes:

1. Purge rate = 0.2 - 0.5 L/minute

2. Drawdown shall be <0.33 foot

SAMPLE PARAMETERS

| | | | | | | | |
|---------|----------|--|--|--|--|--|--|
| 2XSVOCS | 1XD.MERC | | | | | | |
|---------|----------|--|--|--|--|--|--|

SAMPLE RATE

| | | | | | | | |
|----------|----------|--|--|--|--|--|--|
| .4 L/min | .4 L/min | | | | | | |
|----------|----------|--|--|--|--|--|--|

Notes:

1. Sample rate for VOCs analysis = 0.1 - 0.2 L/minute

2. Sample rate for non-VOCs analysis = purge rate = 0.2 - 0.5 L/minute

Condition of Well: GoodRemarks: H2S odor - Merc. Sample was field filtered

FIELD EQUIPMENT

| | | |
|-----------------------------------------|-----------------------------|---------------------------------------------------------------------------------------------------|
| pH Meter <u>HYDROLAB</u> | Serial Number <u>#03682</u> | Number of Bottles <u>2X1LA</u> |
| Temperature Meter <u>HYDROLAB</u> | Serial Number <u>#03682</u> | <u>1X250mLP</u> |
| Turbidity Meter <u>HYDROLAB</u> | Serial Number <u>#03682</u> | Field Notebook <u>Pg. 31</u> |
| Spec. Elec. Cond. Meter <u>HYDROLAB</u> | Serial Number <u>#03682</u> | Sample Method <u>Low Flow</u> |
| ORP Meter <u>HYDROLAB</u> | Serial Number <u>#03682</u> | |
| D.O. Meter <u>HYDROLAB</u> | Serial Number <u>#03682</u> | |
| Interface Probe <u>SOLINST</u> | Serial Number <u>#25582</u> | |
| PID/OVA <u>MINI-RAE</u> | Serial Number <u>#00320</u> | |
| Pump <u>GEO-PUMP</u> | Serial Number <u>#03001</u> | |
| Filter Apparatus <u>GEO-45 MICRON</u> | | Discharge Water Containerized <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |

SEPTEMBER 2004



TETRA TECH FW, INC.

LOW-FLOW GROUNDWATER
SAMPLING DATA SHEETPage 1 of 1Date 9/27/04Well Name W1-1RProject CTO 86-Site 1, R4/04Project No. 1990.086EWell Location Moffett-Site 1Sample Date 9/27/04Sampling Personnel D. HARRISONM. RAMOSSample ID 86-S1-043Duplicate ID N/AScreen Interval 14.3-24.3Station Elevation GND TOC Immiscible Phases Present ☐ Yes ☒ NoStatic Water Level (from TOC) / Time 8.23/0933 8.23/0935 8.23/0935Average Water Level (from TOC) 8.23Reference Point TOCPID Readings (background) OppnReference Elevation PID Reading (TOC) OppnStatic Elevation Notes Well Depth MEAS 27.46 RPTD Feet of Water Depth of Bottom of Tubing 19.3Depth to Water (w/ Tubing in Well) 8.23

PURGING

| Time | Discharge Rate ¹ (L/min) | Dissolved Oxygen (mg/L) | pH | Eh/ORP (mV) | Temp. (°C) | Specific Conduct. (µmhos/cm at °C) | Turbidity (NTU) | Cumulative Volume of Water Removed/Purged (Gallons) | PID/OVA Reading | | Depth to Water ² (ft) | Comments |
|------|-------------------------------------|-------------------------|------|-------------|------------|------------------------------------|-----------------|-----------------------------------------------------|-----------------|-------|----------------------------------|----------|
| | | | | | | | | | Location | Value | | |
| 1045 | .4 | 1.33 | 6.95 | 74 | 23.7 | 72884 | 3.5 | .1 | | | 8.24 | |
| 1048 | .4 | 1.11 | 7.0 | 54 | 23.7 | 73921 | 1.6 | .3 | | | 8.27 | |
| 1051 | .4 | 0.98 | 7.05 | 36 | 24.0 | 75113 | 1.1 | .5 | | | 8.28 | |
| 1054 | .4 | 0.83 | 7.0 | 35 | 23.9 | 75427 | 1.9 | .7 | | | 8.28 | |
| 1057 | .4 | 0.74 | 7.0 | 33 | 23.7 | 75940 | .9 | .4 | | | 8.28 | |
| 1100 | .4 | 0.71 | 7.0 | 31 | 23.6 | 76321 | 1.3 | 1.1 | | | 8.28 | |
| 1103 | .4 | 0.68 | 7.0 | 30 | 23.5 | 76641 | 1.5 | 1.3 | | | 8.28 | |
| 1105 | Collect Sample | | | | | | | | | | | |
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Notes:

1. Purge rate = 0.2 - 0.5 L/minute

2. Drawdown shall be <0.33 foot

SAMPLE PARAMETERS

| | | | | | | | | | | | | |
|---------|----------|--|--|--|--|--|--|--|--|--|--|--|
| 2XSVOCS | 1XD.MERC | | | | | | | | | | | |
|---------|----------|--|--|--|--|--|--|--|--|--|--|--|

SAMPLE RATE

| | | | | | | | | | | | | |
|----------|----------|--|--|--|--|--|--|--|--|--|--|--|
| .4 L/min | .4 L/min | | | | | | | | | | | |
|----------|----------|--|--|--|--|--|--|--|--|--|--|--|

Notes:

1. Sample rate for VOCs analysis = 0.1 - 0.2 L/minute

2. Sample rate for non-VOCs analysis = purge rate = 0.2 - 0.5 L/minute

Condition of Well: Good - NewRemarks: D. Merc was field filtered

FIELD EQUIPMENT

pH Meter HYDROLAB
 Temperature Meter HYDROLAB
 Turbidity Meter HYDROLAB
 Spec. Elec. Cond. Meter HYDROLAB
 ORP Meter HYDROLAB
 D.O. Meter HYDROLAB
 Interface Probe SOLINST
 PID/OVA MINI-RAE
 Pump GEO-PUMP
 Filter Apparatus GEO-.45 MICRON

Serial Number #38518
 Serial Number #38518
 Serial Number #38518
 Serial Number #38518
 Serial Number #38518
 Serial Number #38518
 Serial Number #25582
 Serial Number #00320
 Serial Number BA0041

Number of Bottles 2X1LA
1X250mLP

Field Notebook Pg. 34Sample Method Low FlowDischarge Water Containerized ☒ Yes ☐ No



TETRA TECH FW, INC.

LOW-FLOW GROUNDWATER
SAMPLING DATA SHEETPage 1 of 1Date 9/27/04

| | | | |
|---------------------------------------|-----------------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------------------------------------------------------------------------|
| Well Name <u>W1-5</u> | Screen Interval <u>14.5-19.5</u> | Station Elevation <u>GND</u> TOC <u> </u> | Immiscible Phases Present <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Project <u>CTO 86-Site 1, R4/04</u> | Static Water Level (from TOC) / Time <u>5.54/1023</u> <u>5.54/1024</u> <u>5.54/1025</u> | | |
| Project No. <u>1990.086E</u> | Average Water Level (from TOC) <u>5.54</u> | | |
| Well Location <u>Moffett- Site 1</u> | Reference Point <u>TOC</u> | PID Readings (background) <u>0ppm</u> | |
| Sample Date <u>9/28/04</u> | Reference Elevation <u> </u> | PID Reading (TOC) <u>0ppm</u> | |
| Sampling Personnel <u>D. HARRISON</u> | Static Elevation <u> </u> | Notes <u> </u> | |
| <u>M. RAMOS</u> | Well Depth MEAS <u>21.32</u> RPTD <u> </u> | Feet of Water <u> </u> | |
| Sample ID <u>86-S1-051</u> | Depth of Bottom of Tubing <u>17</u> | | |
| Duplicate ID <u>N/A</u> | Depth to Water (w/ Tubing in Well) <u>5.54</u> | | |

PURGING

| Time | Discharge Rate ¹ (L/min) | Dissolved Oxygen (mg/L) | pH | Eh/ORP (mV) | Temp. (°C) | Specific Conduct. (µmhos/cm at °C) | Turbidity (NTU) | Cumulative Volume of Water Removed/Purged (Gallons) | PID/OVA Reading | | Depth to Water ² (ft) | Comments |
|------|-------------------------------------|-------------------------|-----|-------------|------------|------------------------------------|-----------------|-----------------------------------------------------|-----------------|--|----------------------------------|----------|
| 1010 | .4 | 0.82 | 6.7 | -38 | 19.5 | 71971 | 2.6 | .2 | | | 5.57 | |
| 1013 | .4 | 0.64 | 6.7 | -54 | 20.4 | 69943 | 2.7 | .4 | | | 5.58 | |
| 1016 | .4 | 0.57 | 6.7 | -76 | 20.3 | 70138 | 2.0 | .6 | | | 5.60 | |
| 1019 | .4 | 0.40 | 6.7 | -92 | 20.1 | 70514 | 1.8 | .8 | | | 5.61 | |
| 1022 | .4 | 0.40 | 6.7 | -86 | 20.1 | 70568 | 2.4 | 1.0 | | | 5.62 | |
| 1025 | .4 | 0.41 | 6.7 | -92 | 20.2 | 70207 | 2.2 | 1.2 | | | 5.62 | |
| 1028 | .4 | 0.40 | 6.7 | -94 | 20.0 | 70336 | 1.6 | 1.4 | | | 5.62 | |
| 1030 | Collected Sample | | | | | | | | | | | |
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Notes:

1. Purge rate = 0.2 - 0.5 L/minute

2. Drawdown shall be <0.33 foot

SAMPLE PARAMETERS

| | | | | | | | | | | | | |
|---------|----------|--|--|--|--|--|--|--|--|--|--|--|
| 2XSVOCS | 1XD.MERC | | | | | | | | | | | |
|---------|----------|--|--|--|--|--|--|--|--|--|--|--|

SAMPLE RATE

| | | | | | | | | | | | | |
|----------|----------|--|--|--|--|--|--|--|--|--|--|--|
| .4 L/min | .4 L/min | | | | | | | | | | | |
|----------|----------|--|--|--|--|--|--|--|--|--|--|--|

Notes:

1. Sample rate for VOCs analysis = 0.1 - 0.2 L/minute

2. Sample rate for non-VOCs analysis = purge rate = 0.2 - 0.5 L/minute

Condition of Well: GoodRemarks: Strong H₂S odor - greenish water - D. Merc was field filtered

FIELD EQUIPMENT

| | | |
|-----------------------------------------|-----------------------------|---------------------------------------------------------------------------------------------------|
| pH Meter <u>HYDROLAB</u> | Serial Number <u>#38518</u> | Number of Bottles <u>2X1LA</u> |
| Temperature Meter <u>HYDROLAB</u> | Serial Number <u>#38518</u> | <u>1X250mLP</u> |
| Turbidity Meter <u>HYDROLAB</u> | Serial Number <u>#38518</u> | |
| Spec. Elec. Cond. Meter <u>HYDROLAB</u> | Serial Number <u>#38518</u> | Field Notebook <u>Pg. 39</u> |
| ORP Meter <u>HYDROLAB</u> | Serial Number <u>#38518</u> | |
| D.O. Meter <u>HYDROLAB</u> | Serial Number <u>#38518</u> | Sample Method <u>Low Flow</u> |
| Interface Probe <u>SOLINST</u> | Serial Number <u>#25582</u> | |
| PID/OVA <u>MINI-RAE</u> | Serial Number <u>#00320</u> | |
| Pump <u>GEO-PUMP</u> | Serial Number <u>BA0041</u> | |
| Filter Apparatus <u>GEO-.45 MICRON</u> | | Discharge Water Containerized <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |



TETRA TECH FW, INC.

LOW-FLOW GROUNDWATER
SAMPLING DATA SHEETPage 1 of 1Date 9/27/04

| | | | |
|---------------------------------------|-----------------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------------------------------------------------------------------------|
| Well Name <u>W1-8</u> | Screen Interval <u>13-18</u> | Station Elevation <u>GND</u> TOC <u> </u> | Immiscible Phases Present <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Project <u>CTO 86-Site 1, R4/04</u> | Static Water Level (from TOC) / Time <u>5.61/1027</u> <u>5.61/1028</u> <u>5.61/1029</u> | | |
| Project No. <u>1990.086E</u> | Average Water Level (from TOC) <u>5.61</u> | | |
| Well Location <u>Moffett- Site 1</u> | Reference Point <u>TOC</u> | PID Readings (background) <u>0ppm</u> | |
| Sample Date <u>9/28/04</u> | Reference Elevation <u> </u> | PID Reading (TOC) <u>0ppm</u> | |
| Sampling Personnel <u>D. HARRISON</u> | Static Elevation <u> </u> | Notes <u> </u> | |
| <u>M. RAMOS</u> | Well Depth MEAS <u>22.67</u> RPTD <u> </u> | Feet of Water <u> </u> | |
| Sample ID <u>86-S1-052</u> | Depth of Bottom of Tubing <u>15.5</u> | | |
| Duplicate ID <u>86-S1-053</u> | Depth to Water (w/ Tubing in Well) <u>5.61</u> | | |

PURGING

| Time | Discharge Rate ¹ (L/min) | Dissolved Oxygen (mg/L) | pH | Eh/ORP (mV) | Temp. (°C) | Specific Conduct. (µmhos/cm at °C) | Turbidity (NTU) | Cumulative Volume of Water Removed/Purged (Gallons) | PID/OVA Reading | | Depth to Water ² (ft) | Comments |
|------|-------------------------------------|-------------------------|-----|-------------|------------|------------------------------------|-----------------|-----------------------------------------------------|-----------------|-------|----------------------------------|----------|
| | | | | | | | | | Location | Value | | |
| 1254 | .4 | 0.77 | 6.9 | -43 | 25.2 | 65716 | 2.8 | .2 | | | 5.65 | |
| 1257 | .4 | 0.80 | 6.9 | -44 | 24.0 | 70639 | 2.2 | .4 | | | 5.68 | |
| 1300 | .4 | 0.82 | 6.9 | -44 | 22.7 | 71445 | 2.6 | .6 | | | 5.70 | |
| 1303 | .4 | 0.83 | 6.9 | -44 | 20.6 | 71849 | 2.0 | .8 | | | 5.72 | |
| 1305 | Collect Sample | | | | | | | | | | | |
| 1315 | Collect Field Dep. | | | | | | | | | | | |
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Notes:

- Purge rate = 0.2 - 0.5 L/minute
- Drawdown shall be <0.33 foot

SAMPLE PARAMETERS

| | | | | | | | | | | | | |
|---------|----------|--|--|--|--|--|--|--|--|--|--|--|
| 4XSVOCS | 2XD.MERC | | | | | | | | | | | |
|---------|----------|--|--|--|--|--|--|--|--|--|--|--|

SAMPLE RATE

| | | | | | | | | | | | | |
|----------|----------|--|--|--|--|--|--|--|--|--|--|--|
| .4 L/min | .4 L/min | | | | | | | | | | | |
|----------|----------|--|--|--|--|--|--|--|--|--|--|--|

Notes:

- Sample rate for VOCs analysis = 0.1 - 0.2 L/minute
- Sample rate for non-VOCs analysis = purge rate = 0.2 - 0.5 L/minute

Condition of Well: GoodRemarks: Clear / HAS odor. D. Merc. was field filtered

FIELD EQUIPMENT

| | | |
|-----------------------------------------|-----------------------------|---------------------------------------------------------------------------------------------------|
| pH Meter <u>HYDROLAB</u> | Serial Number <u>#38518</u> | Number of Bottles <u>4X1LA</u> |
| Temperature Meter <u>HYDROLAB</u> | Serial Number <u>#38518</u> | <u>2X250mLP</u> |
| Turbidity Meter <u>HYDROLAB</u> | Serial Number <u>#38518</u> | |
| Spec. Elec. Cond. Meter <u>HYDROLAB</u> | Serial Number <u>#38518</u> | Field Notebook <u>Pgs. 39+40</u> |
| ORP Meter <u>HYDROLAB</u> | Serial Number <u>#38518</u> | |
| D.O. Meter <u>HYDROLAB</u> | Serial Number <u>#38518</u> | Sample Method <u>Low Flow</u> |
| Interface Probe <u>SOLINST</u> | Serial Number <u>#25582</u> | |
| PID/OVA <u>MINI-RAE</u> | Serial Number <u>#00320</u> | |
| Pump <u>GEO-PUMP</u> | Serial Number <u>BA0041</u> | |
| Filter Apparatus <u>GEO-.45 MICRON</u> | | Discharge Water Containerized <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |



TETRA TECH FW, INC.

LOW-FLOW GROUNDWATER SAMPLING DATA SHEET

Page 1 of 1Date 9/27/04

| | | | |
|---------------------------------------|-----------------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------------------------------------------------------------------------|
| Well Name <u>W1-12R</u> | Screen Interval <u>15-25</u> | Station Elevation <u>GND</u> TOC <u> </u> | Immiscible Phases Present <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Project <u>CTO 86-Site 1, R4/04</u> | Static Water Level (from TOC) / Time <u>2.93/1012</u> <u>2.93/1013</u> <u>2.93/1014</u> | | |
| Project No. <u>1990.086E</u> | Average Water Level (from TOC) <u>2.93</u> | | |
| Well Location <u>Moffett- Site 1</u> | Reference Point <u>TOC</u> | PID Readings (background) <u>0ppm</u> | |
| Sample Date <u>9/28/04</u> | Reference Elevation <u> </u> | PID Reading (TOC) <u>0ppm</u> | |
| Sampling Personnel <u>D. HARRISON</u> | Static Elevation <u> </u> | Notes <u> </u> | |
| <u>M. RAMOS</u> | Well Depth MEAS <u>25.66</u> RPTD <u> </u> | Feet of Water <u> </u> | |
| Sample ID <u>86-S1-048</u> | Depth of Bottom of Tubing <u>20</u> | | |
| Duplicate ID <u>86-S1-049</u> | Depth to Water (w/ Tubing in Well) <u>2.93</u> | | |

PURGING

| Time | Discharge Rate ¹ (L/min) | Dissolved Oxygen (mg/L) | pH | Eh/ORP (mV) | Temp. (°C) | Specific Conduct. (µmhos/cm at °C) | Turbidity (NTU) | Cumulative Volume of Water Removed/Purged (Gallons) | PID/OVA Reading | | Depth to Water ² (ft) | Comments |
|------|-------------------------------------|-------------------------|-----|-------------|------------|------------------------------------|-----------------|-----------------------------------------------------|-----------------|-------|----------------------------------|----------|
| | | | | | | | | | Location | Value | | |
| 0759 | .4 | 1.08 | 6.9 | 62 | 16.7 | 83768 | 4.2 | .1 | | | 2.95 | |
| 0802 | .4 | 0.74 | 6.9 | 56 | 17.0 | 83196 | 4.6 | .3 | | | 2.96 | |
| 0805 | .4 | 0.52 | 6.9 | 41 | 17.2 | 82304 | 5.8 | .5 | | | 2.96 | |
| 0808 | .4 | 0.50 | 6.9 | 38 | 17.3 | 82168 | 5.2 | .7 | | | 2.96 | |
| 0811 | .4 | 0.43 | 6.9 | 36 | 17.4 | 81940 | 4.6 | .9 | | | 2.96 | |
| 0814 | .4 | 0.41 | 6.9 | 33 | 17.5 | 81677 | 4.4 | 1.1 | | | 2.96 | |
| 0817 | .4 | 0.39 | 6.9 | 33 | 17.6 | 81458 | 3.8 | 1.3 | | | 2.96 | |
| 0820 | Collect | Sample | | | | | | | | | | |
| 0825 | Collect | Field Duplicate | | | | | | | | | | |
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Notes:

1. Purge rate = 0.2 - 0.5 L/minute

2. Drawdown shall be <0.33 foot

SAMPLE PARAMETERS

| | | | | | | | | | | | | |
|-------------|----------|--|--|--|--|--|--|--|--|--|--|--|
| 4XSVOCS | 2XD.MERC | | | | | | | | | | | |
| SAMPLE RATE | | | | | | | | | | | | |
| .4 | .4 | | | | | | | | | | | |

Notes:

1. Sample rate for VOCs analysis = 0.1 - 0.2 L/minute

2. Sample rate for non-VOCs analysis = purge rate = 0.2 - 0.5 L/minute

Condition of Well: GoodRemarks: Slight N2S odor

FIELD EQUIPMENT

| | | |
|-----------------------------------------|-----------------------------|---------------------------------------------------------------------------------------------------|
| pH Meter <u>HYDROLAB</u> | Serial Number <u>#38518</u> | Number of Bottles <u>4X1LA</u> |
| Temperature Meter <u>HYDROLAB</u> | Serial Number <u>#38518</u> | <u>2X250mLP</u> |
| Turbidity Meter <u>HYDROLAB</u> | Serial Number <u>#38518</u> | |
| Spec. Elec. Cond. Meter <u>HYDROLAB</u> | Serial Number <u>#38518</u> | Field Notebook <u>Pgs. 37 + 38</u> |
| ORP Meter <u>HYDROLAB</u> | Serial Number <u>#38518</u> | |
| D.O. Meter <u>HYDROLAB</u> | Serial Number <u>#38518</u> | Sample Method <u>Low Flow</u> |
| Interface Probe <u>SOLINST</u> | Serial Number <u>#25582</u> | |
| PID/OVA <u>MINI-RAE</u> | Serial Number <u>#00320</u> | |
| Pump <u>GEO-PUMP</u> | Serial Number <u>BA0041</u> | |
| Filter Apparatus <u>GEO-45 MICRON</u> | | Discharge Water Containerized <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |



TETRA TECH FW, INC.

LOW-FLOW GROUNDWATER
SAMPLING DATA SHEETPage 1 of 1Date 9/27/04Well Name W1-14Project CTO 86-Site 1, R4/04Project No. 1990.086EWell Location Moffett- Site 1Sample Date 9/27/04Sampling Personnel D. HARRISONM. RAMOSSample ID 86-S1-047Duplicate ID MS/MSDScreen Interval 4.1-14.1Station Elevation GND TOC Static Water Level (from TOC) / Time 5.84/1003 5.85/1004 5.84/1005Average Water Level (from TOC) 5.84Reference Point TOCReference Elevation Static Elevation Well Depth MEAS 17.67 RPTD Depth of Bottom of Tubing 9.1Depth to Water (w/ Tubing in Well) 5.84Immiscible Phases Present ☐ Yes ☒ NoPID Readings (background) 0ppmPID Reading (TOC) 0ppmNotes Feet of Water

PURGING

| Time | Discharge Rate ¹ (L/min) | Dissolved Oxygen (mg/L) | pH | Eh/ORP (mV) | Temp. (°C) | Specific Conduct. (µmhos/cm at °C) | Turbidity (NTU) | Cumulative Volume of Water Removed/Purged (Gallons) | PID/OVA Reading | | Depth to Water ² (ft) | Comments |
|------|----------------------------------------|----------------------------|-----|----------------|---------------|---------------------------------------|--------------------|--------------------------------------------------------|-----------------|-------|----------------------------------|----------|
| | | | | | | | | | Location | Value | | |
| 1342 | .4 | 0.76 | 6.4 | -7 | 30.4 | 64140 | 1.9 | .1 | | | 5.85 | |
| 1345 | .4 | 0.76 | 6.4 | -9 | 29.1 | 66370 | 2.9 | .3 | | | 5.88 | |
| 1348 | .4 | 0.76 | 6.3 | -14 | 27.3 | 70922 | 3.2 | .5 | | | 5.90 | |
| 1351 | .4 | 0.76 | 6.3 | -14 | 28.0 | 72128 | 2.6 | .7 | | | 5.91 | |
| 1354 | .4 | 0.76 | 6.3 | -15 | 25.0 | 73740 | 2.2 | .9 | | | 5.91 | |
| 1355 | Collect Sample | | | | | | | | | | | |
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Notes:

1. Purge rate = 0.2 - 0.5 L/minute

2. Drawdown shall be <0.33 foot

SAMPLE PARAMETERS

| | | | | | | | | | | | | |
|---------|----------|--|--|--|--|--|--|--|--|--|--|--|
| 6XSVOCS | 3XD.MERC | | | | | | | | | | | |
|---------|----------|--|--|--|--|--|--|--|--|--|--|--|

SAMPLE RATE

| | | | | | | | | | | | | |
|----------|----------|--|--|--|--|--|--|--|--|--|--|--|
| .4 L/min | .4 L/min | | | | | | | | | | | |
|----------|----------|--|--|--|--|--|--|--|--|--|--|--|

Notes:

1. Sample rate for VOCs analysis = 0.1 - 0.2 L/minute

2. Sample rate for non-VOCs analysis = purge rate = 0.2 - 0.5 L/minute

Condition of Well: GoodRemarks: D. Merc. was field filtered - Colorless/slight H₂S odor

FIELD EQUIPMENT

pH Meter HYDROLABTemperature Meter HYDROLABTurbidity Meter HYDROLABSpec. Elec. Cond. Meter HYDROLABORP Meter HYDROLABD.O. Meter HYDROLABInterface Probe SOLINSTPID/OVA MINI-RAEPump GEO-PUMPFilter Apparatus GEO-45 MICRONSerial Number #38518Serial Number #38518Serial Number #38518Serial Number #38518Serial Number #38518Serial Number #38518Serial Number #25582Serial Number #00320Serial Number BA0041Number of Bottles 6X1LA3X250mLPField Notebook Pgs. 35 + 36Sample Method Low FlowDischarge Water Containerized ☒ Yes ☐ No



TETRA TECH FW, INC.

LOW-FLOW GROUNDWATER
SAMPLING DATA SHEETPage 1 of 1Date 9/27/04

| | | | |
|---------------------------------------|-----------------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------------------------------------------------------------------------|
| Well Name <u>W1-15</u> | Screen Interval <u>4.4-14.4</u> | Station Elevation <u>GND</u> TOC <u> </u> | Immiscible Phases Present <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Project <u>CTO 86-Site 1, R4/04</u> | Static Water Level (from TOC) / Time <u>5.93/0936</u> <u>5.93/0957</u> <u>5.93/0938</u> | | |
| Project No. <u>1990.086E</u> | Average Water Level (from TOC) <u>5.43</u> | | |
| Well Location <u>Moffett- Site 1</u> | Reference Point <u>TOC</u> | PID Readings (background) <u>0 Appm</u> | |
| Sample Date <u>9/27/04</u> | Reference Elevation <u> </u> | PID Reading (TOC) <u>0 Appm</u> | |
| Sampling Personnel <u>D. HARRISON</u> | Static Elevation <u> </u> | Notes <u> </u> | |
| <u>M. RAMOS</u> | Well Depth MEAS <u>17.74</u> RPTD <u> </u> | Feet of Water <u> </u> | |
| Sample ID <u>86-S1-044</u> | Depth of Bottom of Tubing <u>9.4</u> | | |
| Duplicate ID <u>N/A</u> | Depth to Water (w/ Tubing in Well) <u>5.93</u> | | |

PURGING

| Time | Discharge Rate ¹ (L/min) | Dissolved Oxygen (mg/L) | pH | Eh/ORP (mV) | Temp. (°C) | Specific Conduct. (µmhos/cm at °C) | Turbidity (NTU) | Cumulative Volume of Water Removed/Purged (Gallons) | PID/OVA Reading | | Depth to Water ² (ft) | Comments |
|------|-------------------------------------|-------------------------|------|-------------|------------|------------------------------------|-----------------|-----------------------------------------------------|-----------------|--|----------------------------------|----------|
| 1140 | .4 L/min | 0.44 | 6.41 | 11 | 23.8 | 72103 | 1.9 | .1 | | | 5.95 | |
| 1143 | .4 | 0.78 | 6.4 | -4 | 27.2 | 70998 | 1.4 | .3 | | | 5.97 | |
| 1144 | .4 | 0.77 | 6.3 | -7 | 26.4 | 71446 | 1.1 | .5 | | | 5.99 | |
| 1149 | .4 | 0.75 | 6.3 | -11 | 25.4 | 72037 | .7 | .7 | | | 6.01 | |
| 1152 | .4 | 0.72 | 6.3 | -11 | 25.4 | 72313 | 1.0 | .9 | | | 6.01 | |
| 1155 | Collect Sample | | | | | | | | | | | |
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Notes:

- Purge rate = 0.2 - 0.5 L/minute
- Drawdown shall be <0.33 foot

SAMPLE PARAMETERS

| | | | | | | | |
|---------|----------|--|--|--|--|--|--|
| 2XSVOCS | 1XD.MERC | | | | | | |
|---------|----------|--|--|--|--|--|--|

SAMPLE RATE

| | | | | | | | |
|----------|----------|--|--|--|--|--|--|
| .4 L/min | .4 L/min | | | | | | |
|----------|----------|--|--|--|--|--|--|

Notes:

- Sample rate for VOCs analysis = 0.1 - 0.2 L/minute
- Sample rate for non-VOCs analysis = purge rate = 0.2 - 0.5 L/minute

Condition of Well: GoodRemarks: clear/odorless water - D. Merc. was field filtered

FIELD EQUIPMENT

| | | |
|-----------------------------------------|-----------------------------|---------------------------------------------------------------------------------------------------|
| pH Meter <u>HYDROLAB</u> | Serial Number <u>#38518</u> | Number of Bottles <u>2X1LA</u> |
| Temperature Meter <u>HYDROLAB</u> | Serial Number <u>#38518</u> | <u>1X250mLP</u> |
| Turbidity Meter <u>HYDROLAB</u> | Serial Number <u>#38518</u> | |
| Spec. Elec. Cond. Meter <u>HYDROLAB</u> | Serial Number <u>#38518</u> | Field Notebook <u>Pg. 34</u> |
| ORP Meter <u>HYDROLAB</u> | Serial Number <u>#38518</u> | |
| D.O. Meter <u>HYDROLAB</u> | Serial Number <u>#38518</u> | Sample Method <u>Low Flow</u> |
| Interface Probe <u>SOLINST</u> | Serial Number <u>#25582</u> | |
| PID/OVA <u>MINI-RAE</u> | Serial Number <u>#00320</u> | |
| Pump <u>GEO-PUMP</u> | Serial Number <u>BA0041</u> | |
| Filter Apparatus <u>GEO-45 MICRON</u> | | Discharge Water Containerized <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |



TETRA TECH FW, INC.

LOW-FLOW GROUNDWATER
SAMPLING DATA SHEETPage 1 of 1Date 9/27/04

| | | | |
|----------------------------------------------------------|-----------------------------------------------------------------------------------------|------------------------------------------------|-----------------------------------------------------------------------------------------------|
| Well Name <u>W1-16</u> | Screen Interval <u>5.4-15.4</u> | Station Elevation <u>GND</u> TOC <u> </u> | Immiscible Phases Present <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Project <u>CTO 86-Site 1, R4/04</u> | Static Water Level (from TOC) / Time <u>7.09/1035</u> <u>7.09/1036</u> <u>7.09/1037</u> | Average Water Level (from TOC) <u>7.09</u> | |
| Project No. <u>1990.086E</u> | Reference Point <u>TOC</u> | PID Readings (background) <u>Oppm</u> | |
| Well Location <u>Moffett- Site 1</u> | Reference Elevation <u> </u> | PID Reading (TOC) <u>Oppm</u> | |
| Sample Date <u>9/28/04</u> | Static Elevation <u> </u> | Notes <u> </u> | |
| Sampling Personnel <u>D. HARRISON</u> <u>M. RAMOS</u> | Well Depth MEAS <u>18.24</u> RPTD <u> </u> | Feet of Water <u> </u> | |
| Sample ID <u>86-S1-055</u> | Depth of Bottom of Tubing <u>10.4</u> | | |
| Duplicate ID <u>N/A</u> | Depth to Water (w/ Tubing in Well) <u>7.07</u> | | |

PURGING

| Time | Discharge Rate ¹ (L/min) | Dissolved Oxygen (mg/L) | pH | Eh/ORP (mV) | Temp. (°C) | Specific Conduct. (µmhos/cm at °C) | Turbidity (NTU) | Cumulative Volume of Water Removed/Purged (Gallons) | PID/OVA Reading | | Depth to Water ² (ft) | Comments |
|------|-------------------------------------|-------------------------|-----|-------------|------------|------------------------------------|-----------------|-----------------------------------------------------|-----------------|-------|----------------------------------|----------|
| | | | | | | | | | Location | Value | | |
| 1449 | .4 | 0.84 | 6.6 | -18 | 32.1 | 68186 | 3.2 | .1 | | | 7.11 | |
| 1452 | .4 | 0.65 | 6.6 | -17 | 31.6 | 68944 | 2.6 | .2 | | | 7.12 | |
| 1455 | .4 | 0.64 | 6.6 | -15 | 30.8 | 69251 | 2.4 | .4 | | | 7.12 | |
| 1458 | .4 | 0.63 | 6.7 | -14 | 29.4 | 70139 | 1.6 | .5 | | | 7.13 | |
| 1501 | .4 | 0.61 | 6.7 | -13 | 28.5 | 70936 | 1.0 | .7 | | | 7.13 | |
| 1504 | .4 | 0.60 | 6.7 | -13 | 27.3 | 71475 | 1.4 | .9 | | | 7.13 | |
| 1505 | Collect Sample | | | | | | | | | | | |
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Notes:

- Purge rate = 0.2 - 0.5 L/minute
- Drawdown shall be <0.33 foot

SAMPLE PARAMETERS

| | | | | | | | | | | | | |
|---------|----------|--|--|--|--|--|--|--|--|--|--|--|
| 2XSVOCS | 1XD.MERC | | | | | | | | | | | |
|---------|----------|--|--|--|--|--|--|--|--|--|--|--|

SAMPLE RATE

| | | | | | | | | | | | | |
|----------|----------|--|--|--|--|--|--|--|--|--|--|--|
| .4 L/min | .4 L/min | | | | | | | | | | | |
|----------|----------|--|--|--|--|--|--|--|--|--|--|--|

Notes:

- Sample rate for VOCs analysis = 0.1 - 0.2 L/minute
- Sample rate for non-VOCs analysis = purge rate = 0.2 - 0.5 L/minute

Condition of Well: GoodRemarks: Strong H₂S odor / greenish-brown. D-Merc. was field filtered

FIELD EQUIPMENT

| | | |
|-----------------------------------------|-----------------------------|---------------------------------------------------------------------------------------------------|
| pH Meter <u>HYDROLAB</u> | Serial Number <u>#38518</u> | Number of Bottles <u>2X1LA</u> |
| Temperature Meter <u>HYDROLAB</u> | Serial Number <u>#38518</u> | <u>1X250mLP</u> |
| Turbidity Meter <u>HYDROLAB</u> | Serial Number <u>#38518</u> | |
| Spec. Elec. Cond. Meter <u>HYDROLAB</u> | Serial Number <u>#38518</u> | Field Notebook <u>Pg. 41</u> |
| ORP Meter <u>HYDROLAB</u> | Serial Number <u>#38518</u> | |
| D.O. Meter <u>HYDROLAB</u> | Serial Number <u>#38518</u> | Sample Method <u>Low Flow</u> |
| Interface Probe <u>SOLINST</u> | Serial Number <u>#25582</u> | |
| PID/OVA <u>MINI-RAE</u> | Serial Number <u>#00320</u> | |
| Pump <u>GEO-PUMP</u> | Serial Number <u>BA0041</u> | |
| Filter Apparatus <u>GEO-45 MICRON</u> | | Discharge Water Containerized <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |



TETRA TECH FW, INC.

LOW-FLOW GROUNDWATER
SAMPLING DATA SHEETPage 1 of 1Date 9/27/04Well Name W1-19Project CTO 86-Site 1, R4/04Project No. 1990.086EWell Location Moffett- Site 1Sample Date 9/27/04Sampling Personnel D. HARRISONM. RAMOSSample ID 86-S1-045Duplicate ID N/AScreen Interval 14-19Station Elevation GND TOCStatic Water Level (from TOC) / Time 5.47/0954 5.47/0955 5.47/0956Average Water Level (from TOC) 5.47Reference Point TOC

Reference Elevation

Static Elevation

Well Depth MEAS 21.19 RPTDDepth of Bottom of Tubing 16.5Depth to Water (w/ Tubing in Well) 5.47Immiscible Phases Present ☐ Yes ☒ NoPID Readings (background) UpperPID Reading (TOC) 3.6 ppm

Notes

Feet of Water

PURGING

| Time | Discharge Rate ¹ (L/min) | Dissolved Oxygen (mg/L) | pH | Eh/ORP (mV) | Temp. (°C) | Specific Conduct. (µmhos/cm at °C) | Turbidity (NTU) | Cumulative Volume of Water Removed/Purged (Gallons) | PID/OVA Reading | | Depth to Water ² (ft) | Comments |
|------|-------------------------------------|-------------------------|-----|-------------|------------|------------------------------------|-----------------|-----------------------------------------------------|-----------------|-------|----------------------------------|----------|
| | | | | | | | | | Location | Value | | |
| 1244 | .4 | 0.87 | 6.4 | 63 | 29.9 | 70304 | 2.5 | .1 | | | 5.49 | |
| 1247 | .4 | 0.70 | 6.4 | 55 | 28.6 | 70934 | 3.2 | .3 | | | 5.53 | |
| 1250 | .4 | 0.56 | 6.4 | 40 | 27.1 | 71116 | 3.6 | .5 | | | 5.53 | |
| 1253 | .4 | 0.54 | 6.4 | 38 | 26.8 | 71302 | 3.8 | .7 | | | 5.54 | |
| 1256 | .4 | 0.52 | 6.4 | 37 | 26.5 | 71494 | 3.5 | .9 | | | 5.45 | |
| 1300 | Collect | Sample | | | | | | | | | | |
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Notes:

1. Purge rate = 0.2 - 0.5 L/minute

2. Drawdown shall be <0.33 foot

SAMPLE PARAMETERS

| | | | | | | | | | | | | |
|---------|----------|--|--|--|--|--|--|--|--|--|--|--|
| 2XSVOcs | 1XD.MERC | | | | | | | | | | | |
|---------|----------|--|--|--|--|--|--|--|--|--|--|--|

SAMPLE RATE

| | | | | | | | | | | | | |
|----------|----------|--|--|--|--|--|--|--|--|--|--|--|
| .4 L/min | .4 L/min | | | | | | | | | | | |
|----------|----------|--|--|--|--|--|--|--|--|--|--|--|

Notes:

1. Sample rate for VOCs analysis = 0.1 - 0.2 L/minute

2. Sample rate for non-VOCs analysis = purge rate = 0.2 - 0.5 L/minute

Condition of Well: GoodRemarks: Water is colorless/odorless - D. Merc. was field filtered

FIELD EQUIPMENT

pH Meter HYDROLAB
 Temperature Meter HYDROLAB
 Turbidity Meter HYDROLAB
 Spec. Elec. Cond. Meter HYDROLAB
 ORP Meter HYDROLAB
 D.O. Meter HYDROLAB
 Interface Probe SOLINST
 PID/OVA MINI-RAE
 Pump GEO-PUMP
 Filter Apparatus GEO-.45 MICRON

Serial Number #38518
 Serial Number #38518
 Serial Number #38518
 Serial Number #38518
 Serial Number #38518
 Serial Number #38518
 Serial Number #25582
 Serial Number #00320
 Serial Number BA0041

Number of Bottles 2X1LA
1X250mLP

Field Notebook Pg. 35Sample Method Low FlowDischarge Water Containerized ☒ Yes ☐ No



TETRA TECH FW, INC.

LOW-FLOW GROUNDWATER
SAMPLING DATA SHEETPage 1 of 1Date 9/27/04

| | | | |
|---------------------------------------|-----------------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------------------------------------------------------------------------|
| Well Name <u>W1-22</u> | Screen Interval <u>N/A</u> | Station Elevation <u>GND</u> TOC <u> </u> | Immiscible Phases Present <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Project <u>CTO 86-Site 1, R4/04</u> | Static Water Level (from TOC) / Time <u>3.79/1017</u> <u>3.79/1018</u> <u>3.79/1019</u> | | |
| Project No. <u>1990.086E</u> | Average Water Level (from TOC) <u>3.79</u> | | |
| Well Location <u>Moffett Site 1</u> | Reference Point <u>TOC</u> | PID Readings (background) <u>Oppm</u> | |
| Sample Date <u>9/28/04</u> | Reference Elevation <u> </u> | PID Reading (TOC) <u>Oppm</u> | |
| Sampling Personnel <u>D. HARRISON</u> | Static Elevation <u> </u> | Notes <u> </u> | |
| <u>M. RAMOS</u> | Well Depth MEAS <u>6.67</u> RPTD <u>6.7</u> | Feet of Water <u> </u> | |
| Sample ID <u>86-S1-050</u> | Depth of Bottom of Tubing <u> </u> | | |
| Duplicate ID <u>N/A</u> | Depth to Water (w/ Tubing in Well) <u>3.79</u> | | |

PURGING

| Time | Discharge Rate ¹ (L/min) | Dissolved Oxygen (mg/L) | pH | EH/ORP (mV) | Temp. (°C) | Specific Conduct. (µmhos/cm at °C) | Turbidity (NTU) | Cumulative Volume of Water Removed/Purged (Gallons) | PID/OVA Reading | | Depth to Water ² (ft) | Comments |
|------|-------------------------------------|-------------------------|-----|-------------|------------|------------------------------------|-----------------|-----------------------------------------------------|-----------------|-------|----------------------------------|----------|
| | | | | | | | | | Location | Value | | |
| 0913 | .4 | 1.31 | 6.8 | 4 | 20.1 | 45876 | 9.6 | .1 | | | 3.81 | |
| 0916 | .4 | 0.73 | 6.8 | -9 | 20.4 | 45409 | 7.2 | .3 | | | 3.84 | |
| 0919 | .4 | 0.51 | 6.8 | -22 | 20.6 | 45002 | 6.5 | .5 | | | 3.86 | |
| 0922 | .4 | 0.49 | 6.8 | -28 | 20.9 | 44798 | 6.0 | .7 | | | 3.87 | |
| 0925 | .4 | 0.47 | 6.8 | -27 | 20.8 | 44997 | 6.2 | .9 | | | 3.93 | |
| 0930 | Collect Sample | | | | | | | | | | | |
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Notes:

1. Purge rate = 0.2 - 0.5 L/minute
2. Drawdown shall be <0.33 foot

SAMPLE PARAMETERS

| | | | | | | | | | | | | |
|-------------|----------|--|--|--|--|--|--|--|--|--|--|--|
| 2XSVOCs | 1XD.MERC | | | | | | | | | | | |
| SAMPLE RATE | | | | | | | | | | | | |
| .4 L/min | .4 L/min | | | | | | | | | | | |

Notes:

1. Sample rate for VOCs analysis = 0.1 - 0.2 L/minute
2. Sample rate for non-VOCs analysis = purge rate = 0.2 - 0.5 L/minute

Condition of Well: GoodRemarks: H₂S odor - greenish/brown water

FIELD EQUIPMENT

| | | |
|-----------------------------------------|-----------------------------|---------------------------------------------------------------------------------------------------|
| pH Meter <u>HYDROLAB</u> | Serial Number <u>#38518</u> | Number of Bottles <u>2X1LA</u> |
| Temperature Meter <u>HYDROLAB</u> | Serial Number <u>#38518</u> | <u>1X250mLP</u> |
| Turbidity Meter <u>HYDROLAB</u> | Serial Number <u>#38518</u> | |
| Spec. Elec. Cond. Meter <u>HYDROLAB</u> | Serial Number <u>#38518</u> | Field Notebook <u>Pg. 38</u> |
| ORP Meter <u>HYDROLAB</u> | Serial Number <u>#38518</u> | |
| D.O. Meter <u>HYDROLAB</u> | Serial Number <u>#38518</u> | Sample Method <u>Low Flow</u> |
| Interface Probe <u>SOLINST</u> | Serial Number <u>#25582</u> | |
| PID/OVA <u>MINI-RAE</u> | Serial Number <u>#00320</u> | |
| Pump <u>GEO-PUMP</u> | Serial Number <u>BA0041</u> | |
| Filter Apparatus <u>GEO-45 MICRON</u> | | Discharge Water Containerized <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |



TETRA TECH FW, INC.

LOW-FLOW GROUNDWATER
SAMPLING DATA SHEETPage 1 of 1Date 9/27/04Well Name W1-23Project CTO 86-Site 1, R4/04Project No. 1990.086EWell Location Moffett- Site 1

Sample Date _____

Sampling Personnel D. HARRISONM. RAMOSSample ID 86-S1-046Duplicate ID N/AScreen Interval N/AStation Elevation GND TOC _____Static Water Level (from TOC) / Time 5.34/1008 5.34/1009 5.34/1010Average Water Level (from TOC) 5.34Reference Point TOC

Reference Elevation _____

Static Elevation _____

Well Depth MEAS 6.0 RPTD 6.0Depth of Bottom of Tubing 5.80Depth to Water (w/ Tubing in Well) 5.34Immiscible Phases Present ☐ Yes ☒ NoPID Readings (background) 0ppmPID Reading (TOC) 0ppm

Notes _____

Feet of Water _____

PURGING

| Time | Discharge Rate ¹ (L/min) | Dissolved Oxygen (mg/L) | pH | Eh/ORP (mV) | Temp. (°C) | Specific Conduct. (µmhos/cm at °C) | Turbidity (NTU) | Cumulative Volume of Water Removed/Purged (Gallons) | PID/OVA Reading | | Depth to Water ² (ft) | Comments |
|------|-------------------------------------|-------------------------|-----|-------------|------------|------------------------------------|-----------------|-----------------------------------------------------|-----------------|-------|----------------------------------|----------|
| | | | | | | | | | Location | Value | | |
| 0720 | .3 | 0.46 | 7.0 | -24 | 19.8 | 100,000+ | 1000+ | .1 | | | 5.44 | |
| 0723 | .3 | 0.43 | 6.9 | -4 | 20.0 | 100,000+ | 1000+ | .2 | | | 5.51 | |
| 0726 | .3 | 0.36 | 6.9 | 8 | 20.1 | 100,000+ | 625 | .3 | | | 5.66 | |
| 0729 | .3 | 0.31 | 6.9 | 26 | 20.2 | 100,000+ | 560 | .4 | | | 5.74 | |
| 0732 | .3 | 0.31 | 6.9 | 37 | 20.2 | 100,000+ | 427 | .5 | | | 5.81 | |
| 0733 | Trench ran dry | | | | | | | | | | | |
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Notes:

1. Purge rate = 0.2 - 0.5 L/minute

2. Drawdown shall be <0.33 foot

SAMPLE PARAMETERS

| | | | | | | | | | | | | |
|---------|----------|--|--|--|--|--|--|--|--|--|--|--|
| 2XSVOCS | 1XD.MERC | | | | | | | | | | | |
|---------|----------|--|--|--|--|--|--|--|--|--|--|--|

SAMPLE RATE

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Notes:

1. Sample rate for VOCs analysis = 0.1 - 0.2 L/minute

2. Sample rate for non-VOCs analysis = purge rate = 0.2 - 0.5 L/minute

Condition of Well: GoodRemarks: H₂S odor / extremely turbid - Green/Black

FIELD EQUIPMENT

pH Meter HYDROLABSerial Number #38518Temperature Meter HYDROLABSerial Number #38518Turbidity Meter HYDROLABSerial Number #38518Spec. Elec. Cond. Meter HYDROLABSerial Number #38518ORP Meter HYDROLABSerial Number #38518D.O. Meter HYDROLABSerial Number #38518Interface Probe SOLINSTSerial Number #25582PID/OVA MINI-RAESerial Number #00320Pump GEO-PUMPSerial Number BA0041Filter Apparatus GEO-45 MICRONNumber of Bottles 2X1LA1X250mLPField Notebook Pg. 37Sample Method Low FlowDischarge Water Containerized ☒ Yes ☐ No



TETRA TECH FW, INC.

LOW-FLOW GROUNDWATER
SAMPLING DATA SHEETPage 1 of 1Date 9/27/04

| | | | |
|---------------------------------------|--------------------------------------------------|----------------------------------------------|-----------------------------------------------------------------------------------------------|
| Well Name <u>W1-24</u> | Screen Interval <u>6-16</u> | Station Elevation <u>GND</u> TOC <u>7.25</u> | Immiscible Phases Present <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Project <u>CTO 86-Site 1, R4/04</u> | Static Water Level (from TOC) / Time <u>7.25</u> | Average Water Level (from TOC) <u>7.25</u> | |
| Project No. <u>1990.086E</u> | Reference Point <u>TOC</u> | PID Readings (background) <u>Oppm</u> | |
| Well Location <u>Moffett- Site 1</u> | Reference Elevation <u></u> | PID Reading (TOC) <u>Oppm</u> | |
| Sample Date <u>9/26/04</u> | Static Elevation <u></u> | Notes <u></u> | |
| Sampling Personnel <u>D. HARRISON</u> | Well Depth MEAS <u>26.26</u> RPTD <u></u> | Feet of Water <u></u> | |
| <u>M. RAMOS</u> | Depth of Bottom of Tubing <u>11</u> | | |
| Sample ID <u>86-S1-054</u> | Depth to Water (w/ Tubing in Well) <u>7.25</u> | | |
| Duplicate ID <u>N/A</u> | | | |

PURGING

| Time | Discharge Rate ¹ (L/min) | Dissolved Oxygen (mg/L) | pH | Eh/ORP (mV) | Temp. (°C) | Specific Conduct. (µmhos/cm at °C) | Turbidity (NTU) | Cumulative Volume of Water Removed/Purged (Gallons) | PID/OVA Reading | | Depth to Water ² (ft) | Comments |
|------|-------------------------------------|-------------------------|------|-------------|------------|------------------------------------|-----------------|-----------------------------------------------------|-----------------|-------|----------------------------------|----------|
| | | | | | | | | | Location | Value | | |
| 1347 | .4 | 0.85 | 6.73 | -37 | 25.1 | 65828 | 10.0 | .1 | | | 7.27 | |
| 1350 | .4 | 0.76 | 6.7 | -41 | 25.4 | 66450 | 12.6 | .2 | | | 7.30 | |
| 1353 | .4 | 0.63 | 6.7 | -48 | 24.9 | 66937 | 7.4 | .4 | | | 7.31 | |
| 1356 | .4 | 0.31 | 6.7 | -49 | 24.2 | 67222 | 7.6 | .6 | | | 7.32 | |
| 1359 | .4 | 0.28 | 6.7 | -50 | 24.0 | 67743 | 7.4 | .8 | | | 7.33 | |
| 1402 | .4 | 0.27 | 6.7 | -50 | 23.7 | 68039 | 8.5 | 1.0 | | | 7.35 | |
| 1405 | Collect Sample | | | | | | | | | | | |
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Notes:

- Purge rate = 0.2 - 0.5 L/minute
- Drawdown shall be <0.33 foot

SAMPLE PARAMETERS

| | | | | | | | | | | | | |
|-------------|----------|--|--|--|--|--|--|--|--|--|--|--|
| 2XSVOCS | 1XD.MERC | | | | | | | | | | | |
| SAMPLE RATE | | | | | | | | | | | | |
| .4 L/min | .4 L/min | | | | | | | | | | | |

Notes:

- Sample rate for VOCs analysis = 0.1 - 0.2 L/minute
- Sample rate for non-VOCs analysis = purge rate = 0.2 - 0.5 L/minute

Condition of Well: GoodRemarks: H2S odor - Greenish/Brown / occluded. D. Merc. was field filtered

FIELD EQUIPMENT

| | | |
|-----------------------------------------|-----------------------------|---------------------------------------------------------------------------------------------------|
| pH Meter <u>HYDROLAB</u> | Serial Number <u>#38518</u> | Number of Bottles <u>2X1LA</u> |
| Temperature Meter <u>HYDROLAB</u> | Serial Number <u>#38518</u> | <u>1X250mLP</u> |
| Turbidity Meter <u>HYDROLAB</u> | Serial Number <u>#38518</u> | |
| Spec. Elec. Cond. Meter <u>HYDROLAB</u> | Serial Number <u>#38518</u> | Field Notebook <u>Pg. 40</u> |
| ORP Meter <u>HYDROLAB</u> | Serial Number <u>#38518</u> | |
| D.O. Meter <u>HYDROLAB</u> | Serial Number <u>#38518</u> | Sample Method <u>Low Flow</u> |
| Interface Probe <u>SOLINST</u> | Serial Number <u>#25582</u> | |
| PID/OVA <u>MINI-RAE</u> | Serial Number <u>#00320</u> | |
| Pump <u>GEO-PUMP</u> | Serial Number <u>BA0041</u> | |
| Filter Apparatus <u>GEO-45 MICRON</u> | | Discharge Water Containerized <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |

DECEMBER 2004

LOW-FLOW GROUNDWATER SAMPLING DATA SHEET

| | | | |
|---------------------------------------|-----------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| Well Name <u>W1-1R</u> | Screen Interval <u>14.3-24.3</u> | Station Elevation <u> </u> GND <u> </u> TOC <u> </u> | Immiscible Phases Present <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Project <u>CTO 86-Site 1</u> | Static Water Level (from TOC) / Time <u>8.06/0912</u> <u>8.05/0913</u> <u>8.05/0914</u> | | |
| Project No. <u>1990.086E</u> | Average Water Level (from TOC) <u>8.05</u> | | |
| Well Location <u>Moffett- Site 1</u> | Reference Point <u>TOC</u> | PID Readings (background) <u>OPAW</u> | |
| Sample Date <u>12/13/04</u> | Reference Elevation <u> </u> | PID Reading (TOC) <u>10ppm</u> | |
| Sampling Personnel <u>D. HARRISON</u> | Static Elevation <u> </u> | Notes <u> </u> | |
| <u>M. RAMOS</u> | Well Depth MEAS <u>27.45</u> RPTD <u> </u> | Feet of Water <u> </u> | |
| Sample ID <u>86-S1-071</u> | Depth of Bottom of Tubing <u>19.3</u> | | |
| Duplicate ID <u>N/A</u> | Depth to Water (w/ Tubing in Well) <u>8.05</u> | | |

[illegible]

Notes:

1. Purge rate = 0.2 - 0.5 L/minute
2. Drawdown shall be <0.33 foot

SAMPLE PARAMETERS

| | | | | | | | |
|---------|-----------|--|--|--|--|--|--|
| 2xSVOCs | 1xD.MERC. | | | | | | |
|---------|-----------|--|--|--|--|--|--|

SAMPLE RATE

| | | | | | | | |
|---|---|--|--|--|--|--|--|
| 4 | 4 | | | | | | |
|---|---|--|--|--|--|--|--|

Notes:

1. Sample rate for VOCs analysis = 0.1 - 0.2 L/minute
2. Sample rate for non-VOCs analysis = purge rate = 0.2 - 0.5 L/minute

Condition of Well: Good - Needs paint

Remarks: Clear/odor free. D. Mercury was field filtered

FIELD EQUIPMENT

pH Meter HYDROLAB
 Temperature Meter HYDROLAB
 Turbidity Meter HYDROLAB
 Spec. Elec. Cond. Meter HYDROLAB
 ORP Meter HYDROLAB
 D.O. Meter HYDROLAB
 Interface Probe SOLINST
 PID/OVA MINI-RAE
 Pump GEO-PUMP
 Filter Apparatus GEO-.45 MICRON

| | |
|---------------|---------|
| Serial Number | #R40797 |
| Serial Number | #R40797 |
| Serial Number | #R40797 |
| Serial Number | #R40797 |
| Serial Number | #R40797 |
| Serial Number | #R40797 |
| Serial Number | #25582 |
| Serial Number | #00320 |
| Serial Number | BA0041 |

Number of Bottles 2X1LA
1X250mLP

Field Notebook Pg. 56

Sample Method Low Flow

Discharge Water Containerized ☒ Yes ☐ No



TETRA TECH FW, INC.

LOW-FLOW GROUNDWATER
SAMPLING DATA SHEETPage 1 of 1Date 12/13/04

| | | |
|---------------------------------------|-----------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| Well Name <u>W1-5</u> | Screen Interval <u>14.5-19.5</u> | Station Elevation <u>GND</u> TOC <u>Immiscible Phases Present</u> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Project <u>CTO 86-Site 1</u> | Static Water Level (from TOC) / Time <u>5.50/0855</u> <u>5.50/0856</u> <u>5.50/0857</u> | Average Water Level (from TOC) <u>5.50</u> |
| Project No. <u>1990.086E</u> | Reference Point <u>TOC</u> | PID Readings (background) <u>Oppu</u> |
| Well Location <u>Moffett- Site 1</u> | Reference Elevation <u></u> | PID Reading (TOC) <u>Oppu</u> |
| Sample Date <u>12-14-04</u> | Static Elevation <u></u> | Notes <u></u> |
| Sampling Personnel <u>D. HARRISON</u> | Well Depth MEAS <u>21.30</u> RPTD <u></u> | Feet of Water <u></u> |
| <u>M. RAMOS</u> | Depth of Bottom of Tubing <u>17</u> | |
| Sample ID <u>86-S1-079</u> | Depth to Water (w/ Tubing in Well) <u>5.50</u> | |
| Duplicate ID <u>86-S1-080</u> | | |

PURGING

| Time | Discharge Rate ¹ (L/min) | Dissolved Oxygen (mg/L) | pH | Eh/ORP (mV) | Temp. (°C) | Specific Conduct. (µmhos/cm at °C) | Turbidity (NTU) | Cumulative Volume of Water Removed/Purged (Gallons) | PID/OVA Reading | | Depth to Water ² (ft) | Comments |
|------|-------------------------------------|-------------------------|------|-------------|------------|------------------------------------|-----------------|-----------------------------------------------------|-----------------|-------|----------------------------------|----------|
| | | | | | | | | | Location | Value | | |
| 0831 | .4 | 0.56 | 6.77 | 153 | 14.69 | 65.478 | 0.0 | .2 | | | 5.51 | |
| 0834 | .4 | 0.60 | 6.80 | 148 | 15.27 | 65.455 | 0.0 | .4 | | | 5.53 | |
| 0837 | .4 | 0.60 | 6.79 | 153 | 15.26 | 65.520 | 0.0 | .4 | | | 5.54 | |
| 0840 | .4 | 0.50 | 6.80 | 154 | 15.26 | 65.465 | 0.0 | .8 | | | 5.54 | |
| 0845 | Collect Sample | | | | | | | | | | | |
| 0855 | Collect Field Duplicate | | | | | | | | | | | |
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Notes:

- Purge rate = 0.2 - 0.5 L/minute
- Drawdown shall be <0.33 foot

SAMPLE PARAMETERS

| | | | | | | | | | | | | |
|--------|---------|--|--|--|--|--|--|--|--|--|--|--|
| SVOC's | D.MERC. | | | | | | | | | | | |
|--------|---------|--|--|--|--|--|--|--|--|--|--|--|

SAMPLE RATE

| | | | | | | | | | | | | |
|----|----|--|--|--|--|--|--|--|--|--|--|--|
| .4 | .4 | | | | | | | | | | | |
|----|----|--|--|--|--|--|--|--|--|--|--|--|

Notes:

- Sample rate for VOCs analysis = 0.1 - 0.2 L/minute
- Sample rate for non-VOCs analysis = purge rate = 0.2 - 0.5 L/minute

Condition of Well: GoodRemarks: Clear / Slight H₂S odor. D. Mercury was field filtered.

FIELD EQUIPMENT

| | | |
|-----------------------------------------|------------------------------|---------------------------------------------------------------------------------------------------|
| pH Meter <u>HYDROLAB</u> | Serial Number <u>#R40797</u> | Number of Bottles <u>4x1LA</u> |
| Temperature Meter <u>HYDROLAB</u> | Serial Number <u>#R40797</u> | <u>2x250mLP</u> |
| Turbidity Meter <u>HYDROLAB</u> | Serial Number <u>#R40797</u> | |
| Spec. Elec. Cond. Meter <u>HYDROLAB</u> | Serial Number <u>#R40797</u> | |
| ORP Meter <u>HYDROLAB</u> | Serial Number <u>#R40797</u> | Field Notebook <u>Pgs. 60+61</u> |
| D.O. Meter <u>HYDROLAB</u> | Serial Number <u>#R40797</u> | Sample Method <u>Low Flow</u> |
| Interface Probe <u>SOLINST</u> | Serial Number <u>#25582</u> | |
| PID/OVA <u>MINI-RAE</u> | Serial Number <u>#00320</u> | |
| Pump <u>GEO-PUMP</u> | Serial Number <u>BA0041</u> | |
| Filter Apparatus <u>GEO- 45 MICRON</u> | | Discharge Water Containerized <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |



TETRA TECH FW, INC.

LOW-FLOW GROUNDWATER
SAMPLING DATA SHEETPage 1 of 1Date 12/13/04

| | | |
|---------------------------------------|-----------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| Well Name <u>W1-8</u> | Screen Interval <u>13-18</u> | Station Elevation <u>GND</u> TOC <u>Immiscible Phases Present</u> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Project <u>CTO 86-Site 1</u> | Static Water Level (from TOC) / Time <u>5.55/0859</u> <u>5.56/0900</u> <u>5.55/0901</u> | Average Water Level (from TOC) <u>5.55</u> |
| Project No. <u>1990.086E</u> | Reference Point <u>TOC</u> | PID Readings (background) <u>Open</u> |
| Well Location <u>Moffett- Site 1</u> | Reference Elevation <u></u> | PID Reading (TOC) <u>Open</u> |
| Sample Date <u>12-14-04</u> | Static Elevation <u></u> | Notes <u></u> |
| Sampling Personnel <u>D. HARRISON</u> | Well Depth MEAS <u>22.68</u> RPTD <u></u> | Feet of Water <u></u> |
| <u>M. RAMOS</u> | Depth of Bottom of Tubing <u>15.5</u> | |
| Sample ID <u>86-S1-081</u> | Depth to Water (w/ Tubing in Well) <u>5.55</u> | |
| Duplicate ID <u>n/a</u> | | |

PURGING

| Time | Discharge Rate ¹ (L/min) | Dissolved Oxygen (mg/L) | pH | EH/ORP (mV) | Temp. (°C) | Specific Conduct. (µmhos/cm at °C) | Turbidity (NTU) | Cumulative Volume of Water Removed/Purged (Gallons) | PID/OVA Reading | | Depth to Water ² (ft) | Comments |
|------|-------------------------------------|-------------------------|------|-------------|------------|------------------------------------|-----------------|-----------------------------------------------------|-----------------|-------|----------------------------------|----------|
| | | | | | | | | | Location | Value | | |
| 0910 | .4 | 0.50 | 6.99 | 192 | 16.56 | 64852 | 6.4 | .2 | | | 5.57 | |
| 0913 | .4 | 0.26 | 6.99 | 190 | 16.64 | 64998 | 5.3 | .4 | | | 5.58 | |
| 0916 | .4 | 0.20 | 6.99 | 173 | 16.73 | 65064 | 4.2 | .6 | | | 5.60 | |
| 0919 | .4 | 0.16 | 7.00 | 168 | 16.74 | 65158 | 3.4 | .8 | | | 5.62 | |
| 0922 | .4 | 0.14 | 7.00 | 163 | 16.63 | 65340 | 2.3 | 1.1 | | | 5.63 | |
| 0925 | .4 | | | | | | | | | | | |
| 0930 | Collect Sample | | | | | | | | | | | |
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Notes:

1. Purge rate = 0.2 - 0.5 L/minute
2. Drawdown shall be <0.33 foot

SAMPLE PARAMETERS

| | | | | | | | | | | | | |
|--------|---------|--|--|--|--|--|--|--|--|--|--|--|
| SVOC's | D.MERC. | | | | | | | | | | | |
|--------|---------|--|--|--|--|--|--|--|--|--|--|--|

SAMPLE RATE

| | | | | | | | | | | | | |
|----------|----------|--|--|--|--|--|--|--|--|--|--|--|
| .4 L/min | .4 L/min | | | | | | | | | | | |
|----------|----------|--|--|--|--|--|--|--|--|--|--|--|

Notes:

1. Sample rate for VOCs analysis = 0.1 - 0.2 L/minute
2. Sample rate for non-VOCs analysis = purge rate = 0.2 - 0.5 L/minute

Condition of Well: GoodRemarks: Grn Turbidity / slight H₂S odor. A. Mercury was field filtered

FIELD EQUIPMENT

| | | |
|-----------------------------------------|------------------------------|---------------------------------------------------------------------------------------------------|
| pH Meter <u>HYDROLAB</u> | Serial Number <u>#R40797</u> | Number of Bottles <u>2x1LA</u> |
| Temperature Meter <u>HYDROLAB</u> | Serial Number <u>#R40797</u> | <u>1x250mLP</u> |
| Turbidity Meter <u>HYDROLAB</u> | Serial Number <u>#R40797</u> | |
| Spec. Elec. Cond. Meter <u>HYDROLAB</u> | Serial Number <u>#R40797</u> | |
| ORP Meter <u>HYDROLAB</u> | Serial Number <u>#R40797</u> | Field Notebook <u>Pg. 61</u> |
| D.O. Meter <u>HYDROLAB</u> | Serial Number <u>#R40797</u> | Sample Method <u>Low Flow</u> |
| Interface Probe <u>SOLINST</u> | Serial Number <u>#25582</u> | |
| PID/OVA <u>MINI-RAE</u> | Serial Number <u>#00320</u> | |
| Pump <u>GEO-PUMP</u> | Serial Number <u>BA0041</u> | |
| Filter Apparatus <u>GEO-45 MICRON</u> | | Discharge Water Containerized <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |



TETRA TECH P.W. INC.

LOW-FLOW GROUNDWATER SAMPLING DATA SHEET

Page 1 of 1Date 12/13/04Well Name W1-12RProject CTO 86-Site 1Project No. 1990.086EWell Location Moffett- Site 1Sample Date 12-13-04Sampling Personnel D. HARRISONM. RAMOSScreen Interval 15-25Station Elevation GND TOCStatic Water Level (from TOC) / Time 2.75/0950 2.75/0951 2.75/0952Average Water Level (from TOC) 2.75Reference Point TOC

Reference Elevation

Static Elevation

Well Depth MEAS 25.65 RPTDDepth of Bottom of Tubing 20Depth to Water (w/ Tubing in Well) 2.75Immiscible Phases Present ☐ Yes ☒ NoPID Readings (background) 0ppmPID Reading (TOC) 0ppm

Notes

Feet of Water

Sample ID 86-S1-076Duplicate ID 86-S1-077

PURGING

| Time | Discharge Rate ¹ (L/min) | Dissolved Oxygen (mg/L) | pH | Eh/ORP (mV) | Temp. (°C) | Specific Conduct. (µmhos/cm at °C) | Turbidity (NTU) | Cumulative Volume of Water Removed/Purged (Gallons) | PID/OVA Reading | | Depth to Water ² (ft) | Comments |
|------|-------------------------------------|-------------------------|------|-------------|------------|------------------------------------|-----------------|-----------------------------------------------------|-----------------|-------|----------------------------------|----------|
| | | | | | | | | | Location | Value | | |
| 1440 | .4 | 0.36 | 6.81 | 345 | 23.11 | 56397 | 29 | .2 | | | 2.76 | |
| 1443 | .4 | 0.30 | 6.82 | 353 | 23.21 | 56763 | 50 | .4 | | | 2.77 | |
| 1446 | .4 | 0.28 | 6.85 | 357 | 23.09 | 56759 | 60 | .6 | | | 2.78 | |
| 1449 | .4 | 0.27 | 6.82 | 359 | 22.07 | 58299 | 34 | .8 | | | 2.78 | |
| 1452 | .4 | 0.23 | 6.86 | 355 | 22.27 | 57934 | 32 | 1.0 | | | 2.78 | |
| 1455 | .4 | 0.27 | 6.84 | 349 | 22.40 | 57972 | 32 | 1.2 | | | 2.78 | |
| 1458 | .4 | 0.27 | 6.84 | 348 | 21.85 | 58308 | 33 | 1.4 | | | 2.78 | |
| 1500 | Collect Sample | | | | | | | | | | | |
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Notes:

1. Purge rate = 0.2 - 0.5 L/minute

2. Drawdown shall be <0.33 foot

SAMPLE PARAMETERS

| | | | | | | | | | | | | |
|-------|--------|--|--|--|--|--|--|--|--|--|--|--|
| SVOCs | D.MERC | | | | | | | | | | | |
|-------|--------|--|--|--|--|--|--|--|--|--|--|--|

SAMPLE RATE

| | | | | | | | | | | | | |
|----|----|--|--|--|--|--|--|--|--|--|--|--|
| .4 | .4 | | | | | | | | | | | |
|----|----|--|--|--|--|--|--|--|--|--|--|--|

Notes:

1. Sample rate for VOCs analysis = 0.1 - 0.2 L/minute

2. Sample rate for non-VOCs analysis = purge rate = 0.2 - 0.5 L/minute

Condition of Well: GoodRemarks: DK grn. Turbid water / Strong H₂S odor. D. Merc. was Field Filtered

FIELD EQUIPMENT

pH Meter HYDROLABTemperature Meter HYDROLABTurbidity Meter HYDROLABSpec. Elec. Cond. Meter HYDROLABORP Meter HYDROLABD.O. Meter HYDROLABInterface Probe SOLINSTPID/OVA MINI-RAEPump GEO-PUMPFilter Apparatus GEO-45 MICRONSerial Number #R40797Serial Number #R40797Serial Number #R40797Serial Number #R40797Serial Number #R40797Serial Number #R40797Serial Number #25582Serial Number #00320Serial Number BA0041Number of Bottles 4 x 1L
6 x 1/4
2x250mLPField Notebook Pgs 58 + 59Sample Method Low FlowDischarge Water Containerized ☒ Yes ☐ No



TETRA TECH FW, INC.

LOW-FLOW GROUNDWATER SAMPLING DATA SHEET

Page 1 of 1Date 12/13/04

| | | | |
|---------------------------------------|-----------------------------------------------------------------------------------------|------------------------------------------------|-----------------------------------------------------------------------------------------------|
| Well Name <u>W1-14</u> | Screen Interval <u>4.1-14.1</u> | Station Elevation <u>GND</u> TOC <u> </u> | Immiscible Phases Present <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Project <u>CTO 86-Site 1</u> | Static Water Level (from TOC) / Time <u>5.55/0942</u> <u>5.55/0942</u> <u>5.55/0943</u> | | |
| Project No. <u>1990.086E</u> | Average Water Level (from TOC) <u>5.55</u> | | |
| Well Location <u>Moffett- Site 1</u> | Reference Point <u>TOC</u> | PID Readings (background) <u>0 ppm</u> | |
| Sample Date <u>12-13-04</u> | Reference Elevation <u> </u> | PID Reading (TOC) <u>0 ppm</u> | |
| Sampling Personnel <u>D. HARRISON</u> | Static Elevation <u> </u> | Notes <u> </u> | |
| <u>M. RAMOS</u> | Well Depth MEAS <u>17.70</u> RPTD <u> </u> | Feet of Water <u> </u> | |
| Sample ID <u>86-S1-075</u> | Depth of Bottom of Tubing <u>9.1</u> | | |
| Duplicate ID <u>N/A</u> | Depth to Water (w/ Tubing in Well) <u>5.55</u> | | |

PURGING

| Time | Discharge Rate ¹ (L/min) | Dissolved Oxygen (mg/L) | pH | Eh/ORP (mV) | Temp. (°C) | Specific Conduct. (µmhos/cm at °C) | Turbidity (NTU) | Cumulative Volume of Water Removed/Purged (Gallons) | PID/OVA Reading | | Depth to Water ² (ft) | Comments |
|------|-------------------------------------|-------------------------|------|-------------|------------|------------------------------------|-----------------|-----------------------------------------------------|-----------------|-------|----------------------------------|----------|
| | | | | | | | | | Location | Value | | |
| 1335 | .4 | 0.77 | 6.90 | 363 | 25.34 | 52878 | 27 | .2 | | | 5.58 | |
| 1338 | .4 | 0.48 | 6.89 | 329 | 21.55 | 56968 | 26 | .4 | | | 5.60 | |
| 1341 | .4 | 0.33 | 6.89 | 129 | 25.05 | 53496 | 13 | .6 | | | 5.62 | |
| 1344 | .4 | 0.25 | 6.89 | 81 | 25.71 | 53559 | 6.3 | .8 | | | 5.61 | |
| 1347 | .4 | 0.19 | 6.86 | 90 | 26.02 | 55016 | 4.6 | 1.0 | | | 5.63 | |
| 1350 | .4 | 0.16 | 6.84 | 106 | 26.20 | 55418 | 4.8 | 1.2 | | | 5.64 | |
| 1353 | .4 | 0.15 | 6.84 | 114 | 26.38 | 55906 | 3.7 | 1.4 | | | 5.64 | |
| 1356 | .4 | 0.15 | 6.84 | 116 | 26.45 | 55397 | 3.1 | 1.6 | | | 5.65 | |
| 1358 | Collect Sample | | | | | | | | | | | |
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Notes:

- Purge rate = 0.2 - 0.5 L/minute
- Drawdown shall be <0.33 foot

SAMPLE PARAMETERS

| | | | | | | | | | | | | |
|-------|---------|--|--|--|--|--|--|--|--|--|--|--|
| SVOCs | D.MERC. | | | | | | | | | | | |
|-------|---------|--|--|--|--|--|--|--|--|--|--|--|

SAMPLE RATE

| | | | | | | | | | | | | |
|-----------|-----------|--|--|--|--|--|--|--|--|--|--|--|
| 0.4 L/min | 0.4 L/min | | | | | | | | | | | |
|-----------|-----------|--|--|--|--|--|--|--|--|--|--|--|

Notes:

- Sample rate for VOCs analysis = 0.1 - 0.2 L/minute
- Sample rate for non-VOCs analysis = purge rate = 0.2 - 0.5 L/minute

Condition of Well: GoodRemarks: Slight brown turbidity / odor free. D. Mercury was field filtered

FIELD EQUIPMENT

| | | |
|-----------------------------------------|------------------------------|---------------------------------------------------------------------------------------------------|
| pH Meter <u>HYDROLAB</u> | Serial Number <u>#R40797</u> | Number of Bottles <u>2X1LA</u> |
| Temperature Meter <u>HYDROLAB</u> | Serial Number <u>#R40797</u> | <u>1X250mLP</u> |
| Turbidity Meter <u>HYDROLAB</u> | Serial Number <u>#R40797</u> | |
| Spec. Elec. Cond. Meter <u>HYDROLAB</u> | Serial Number <u>#R40797</u> | |
| ORP Meter <u>HYDROLAB</u> | Serial Number <u>#R40797</u> | Field Notebook <u>Pg. 57+58</u> |
| D.O. Meter <u>HYDROLAB</u> | Serial Number <u>#R40797</u> | |
| Interface Probe <u>SOLINST</u> | Serial Number <u>#25582</u> | Sample Method <u>Low Flow</u> |
| PID/OVA <u>MINI-RAE</u> | Serial Number <u>#00320</u> | |
| Pump <u>GEO-PUMP</u> | Serial Number <u>BA0041</u> | |
| Filter Apparatus <u>GEO-45 MICRON</u> | | Discharge Water Containerized <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |



TETRA TECH FW, INC.

LOW-FLOW GROUNDWATER
SAMPLING DATA SHEETPage 1 of 1Date 12/13/04

| | | | |
|---------------------------------------|-----------------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------------------------------------------------------------------------|
| Well Name <u>W1-15</u> | Screen Interval <u>4.4-14.4</u> | Station Elevation <u>GND</u> TOC <u> </u> | Immiscible Phases Present <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Project <u>CTO 86-Site 1</u> | Static Water Level (from TOC) / Time <u>5.75/0918</u> <u>5.75/0919</u> <u>5.75/0920</u> | | |
| Project No. <u>1990.086E</u> | Average Water Level (from TOC) <u>5.75</u> | | |
| Well Location <u>Moffett- Site 1</u> | Reference Point <u>TOC</u> | PID Readings (background) <u>Open</u> | |
| Sample Date <u>12/13/04</u> | Reference Elevation <u> </u> | PID Reading (TOC) <u>Open</u> | |
| Sampling Personnel <u>D. HARRISON</u> | Static Elevation <u> </u> | Notes <u> </u> | |
| <u>M. RAMOS</u> | Well Depth MEAS <u>17.75</u> RPTD <u> </u> | Feet of Water <u> </u> | |
| Sample ID <u>86-S1-072</u> | Depth of Bottom of Tubing <u>9.4</u> | | |
| Duplicate ID <u>collect ms/msd</u> | Depth to Water (w/ Tubing in Well) <u>5.75</u> | | |

PURGING

| Time | Discharge Rate ¹ (L/min) | Dissolved Oxygen (mg/L) | pH | Eh/ORP (mV) | Temp. (°C) | Specific Conduct. (µmhos/cm at °C) | Turbidity (NTU) | Cumulative Volume of Water Removed/Purged (Gallons) | PID/OVA Reading | | Depth to Water ² (ft) | Comments |
|------|-------------------------------------|-------------------------|------|-------------|------------|------------------------------------|-----------------|-----------------------------------------------------|-----------------|--|----------------------------------|----------|
| 1053 | .4 | 0.62 | 6.61 | 130 | 23.38 | 62077 | 0.3 | .2 | | | 5.77 | |
| 1056 | .4 | 0.59 | 6.67 | 129 | 22.01 | 62315 | 0.0 | .4 | | | 5.80 | |
| 1059 | .4 | 0.59 | 6.67 | 130 | 21.78 | 62542 | 0.0 | .6 | | | 5.81 | |
| 1102 | .4 | 0.56 | 6.71 | 131 | 21.63 | 63333 | 0.0 | .8 | | | 5.82 | |
| 1105 | .4 | 0.47 | 6.70 | 132 | 21.67 | 63222 | 0.0 | 1.0 | | | 5.83 | |
| 1108 | .4 | 0.44 | 6.72 | 133 | 21.68 | 63103 | 0.0 | 1.2 | | | 5.84 | |
| 1111 | .4 | 0.39 | 6.70 | 135 | 21.71 | 62679 | 0.0 | 1.4 | | | 5.85 | |
| 1115 | Collect Sample | | | | | | | | | | | |
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Notes:

- Purge rate = 0.2 - 0.5 L/minute
- Drawdown shall be <0.33 foot

SAMPLE PARAMETERS

| | | | | | | | | | | | | |
|-------|---------|--|--|--|--|--|--|--|--|--|--|--|
| SVOCs | D.MERC. | | | | | | | | | | | |
|-------|---------|--|--|--|--|--|--|--|--|--|--|--|

SAMPLE RATE

| | | | | | | | | | | | | |
|----|----|--|--|--|--|--|--|--|--|--|--|--|
| .4 | .4 | | | | | | | | | | | |
|----|----|--|--|--|--|--|--|--|--|--|--|--|

Notes:

- Sample rate for VOCs analysis = 0.1 - 0.2 L/minute
- Sample rate for non-VOCs analysis = purge rate = 0.2 - 0.5 L/minute

Condition of Well: GoodRemarks: Clear bottom face. D. Merc. was field filtered

FIELD EQUIPMENT

| | | |
|-----------------------------------------|------------------------------|---------------------------------------------------------------------------------------------------|
| pH Meter <u>HYDROLAB</u> | Serial Number <u>#R40797</u> | Number of Bottles <u>6X1LA</u> |
| Temperature Meter <u>HYDROLAB</u> | Serial Number <u>#R40797</u> | <u>3X250mLP</u> |
| Turbidity Meter <u>HYDROLAB</u> | Serial Number <u>#R40797</u> | |
| Spec. Elec. Cond. Meter <u>HYDROLAB</u> | Serial Number <u>#R40797</u> | |
| ORP Meter <u>HYDROLAB</u> | Serial Number <u>#R40797</u> | Field Notebook <u>Pgs. 56+57</u> |
| D.O. Meter <u>HYDROLAB</u> | Serial Number <u>#R40797</u> | |
| Interface Probe <u>SOLINST</u> | Serial Number <u>#25582</u> | Sample Method <u>Low Flow</u> |
| PID/OVA <u>MINI-RAE</u> | Serial Number <u>#00320</u> | |
| Pump <u>GEO-PUMP</u> | Serial Number <u>BA0041</u> | |
| Filter Apparatus <u>GEO-45 MICRON</u> | | Discharge Water Containerized <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |



TETRA TECH FW, INC.

LOW-FLOW GROUNDWATER SAMPLING DATA SHEET

Page 1 of 1Date 12/13/04

| | | | |
|---------------------------------------|-----------------------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------------------------------------------------------------------------|
| Well Name <u>W1-16</u> | Screen Interval <u>5.4-15.4</u> | Station Elevation <u>GND</u> TOC <u> </u> | Immiscible Phases Present <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Project <u>CTO 86-Site 1</u> | Static Water Level (from TOC) / Time <u>7.10 - 0907</u> <u>7.10 - 0908</u> <u>7.10 - 0909</u> | | |
| Project No. <u>1990.086E</u> | Average Water Level (from TOC) <u>7.10</u> | | |
| Well Location <u>Moffett- Site 1</u> | Reference Point <u>TOC</u> | PID Readings (background) <u>0.00u</u> | |
| Sample Date <u>12-14-04</u> | Reference Elevation <u> </u> | PID Reading (TOC) <u>0.00u</u> | |
| Sampling Personnel <u>D. HARRISON</u> | Static Elevation <u> </u> | Notes <u> </u> | |
| <u>M. RAMOS</u> | Well Depth MEAS <u>18.24</u> RPTD <u> </u> | Feet of Water <u> </u> | |
| Sample ID <u>86-S1-083</u> | Depth of Bottom of Tubing <u>10.4</u> | | |
| Duplicate ID <u>N/A</u> | Depth to Water (w/ Tubing in Well) <u>7.10</u> | | |

PURGING

| Time | Discharge Rate ¹ (L/min) | Dissolved Oxygen (mg/L) | pH | Eh/ORP (mV) | Temp. (°C) | Specific Conduct. (µmhos/cm at °C) | Turbidity (NTU) | Cumulative Volume of Water Removed/Purged (Gallons) | PID/OVA Reading | | Depth to Water ² (ft) | Comments |
|------|-------------------------------------|-------------------------|------|-------------|------------|------------------------------------|-----------------|-----------------------------------------------------|-----------------|-------|----------------------------------|----------|
| | | | | | | | | | Location | Value | | |
| 1019 | .4 | 0.40 | 6.71 | 116 | 18.13 | 66602 | 0.5 | .2 | | | 7.12 | |
| 1022 | .4 | 0.14 | 6.75 | 98 | 18.19 | 67065 | 0.0 | .4 | | | 7.16 | |
| 1025 | .4 | 0.06 | 6.74 | 68 | 18.24 | 68045 | 0.0 | .6 | | | 7.17 | |
| 1028 | .4 | 0.09 | 6.73 | 111 | 18.35 | 69804 | 0.0 | .8 | | | 7.18 | |
| 1031 | .4 | 0.05 | 6.71 | 134 | 18.35 | 69649 | 0.0 | 1.0 | | | 7.20 | |
| 1034 | .4 | 0.06 | 6.71 | 136 | 18.37 | 69723 | 0.0 | 1.2 | | | 7.22 | |
| 1035 | Collect Sample | | | | | | | | | | | |
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Notes:

1. Purge rate = 0.2 - 0.5 L/minute

2. Drawdown shall be <0.33 foot

SAMPLE PARAMETERS

| | | | | | | | |
|--------|---------|--|--|--|--|--|--|
| SVOC's | D.MERC. | | | | | | |
|--------|---------|--|--|--|--|--|--|

SAMPLE RATE

| | | | | | | | |
|----------|----------|--|--|--|--|--|--|
| .4 L/min | .4 L/min | | | | | | |
|----------|----------|--|--|--|--|--|--|

Notes:

1. Sample rate for VOCs analysis = 0.1 - 0.2 L/minute

2. Sample rate for non-VOCs analysis = purge rate = 0.2 - 0.5 L/minute

Condition of Well: GoodRemarks: Clear / slight H₂S odor, D. Mercury was field filtered

FIELD EQUIPMENT

| | | |
|-----------------------------------------|------------------------------|---------------------------------------------------------------------------------------------------|
| pH Meter <u>HYDROLAB</u> | Serial Number <u>#R40797</u> | Number of Bottles <u>2X11A</u> |
| Temperature Meter <u>HYDROLAB</u> | Serial Number <u>#R40797</u> | <u>1X250mLP</u> |
| Turbidity Meter <u>HYDROLAB</u> | Serial Number <u>#R40797</u> | |
| Spec. Elec. Cond. Meter <u>HYDROLAB</u> | Serial Number <u>#R40797</u> | |
| ORP Meter <u>HYDROLAB</u> | Serial Number <u>#R40797</u> | Field Notebook <u>Pgs. 62 + 63</u> |
| D.O. Meter <u>HYDROLAB</u> | Serial Number <u>#R40797</u> | Sample Method <u>Low Flow</u> |
| Interface Probe <u>SOLINST</u> | Serial Number <u>#25582</u> | |
| PID/OVA <u>MINI-RAE</u> | Serial Number <u>#00320</u> | |
| Pump <u>GEO-PUMP</u> | Serial Number <u>BA0041</u> | |
| Filter Apparatus <u>GEO-45 MICRON</u> | | Discharge Water Containerized <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |



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Date 12/13/04

| | | |
|---------------------------------------|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| Well Name <u>W1-19</u> | Screen Interval <u>14-19</u> | |
| Project <u>CTO 86-Site 1</u> | Station Elevation <u> </u> GND <u> </u> TOC <u> </u> | Immiscible Phases Present <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Project No. <u>1990.086E</u> | Static Water Level (from TOC) / Time <u>5.15/0836</u> <u>5.15/0937</u> <u>5.15/0938</u> | |
| Well Location <u>Moffett- Site 1</u> | Average Water Level (from TOC) <u>5.15</u> | |
| Sample Date <u>12-13-04</u> | Reference Point <u>TOC</u> | PID Readings (background) <u>Open</u> |
| Sampling Personnel <u>D. HARRISON</u> | Reference Elevation <u> </u> | PID Reading (TOC) <u>Open</u> |
| <u>M. RAMOS</u> | Static Elevation <u> </u> | Notes <u> </u> |
| | Well Depth MEAS <u>21.30</u> RPTD <u> </u> | Feet of Water <u> </u> |
| Sample ID <u>86-S1-073</u> | Depth of Bottom of Tubing <u>16.5</u> | |
| Duplicate ID <u>N/A</u> | Depth to Water (w/ Tubing in Well) <u>5.15</u> | |

[illegible]

Notes:

1. Purge rate = 0.2 - 0.5 L/minute
2. Drawdown shall be <0.33 foot

SAMPLE PARAMETERS

| | | | | | | | |
|-------|---------|--|--|--|--|--|--|
| SVOCs | D.MERC. | | | | | | |
|-------|---------|--|--|--|--|--|--|

SAMPLE RATE

| | | | | | | | |
|--------|--------|--|--|--|--|--|--|
| .4 L/m | .4 L/m | | | | | | |
|--------|--------|--|--|--|--|--|--|

Notes:

1. Sample rate for VOCs analysis = 0.1 - 0.2 L/minute
2. Sample rate for non-VOCs analysis = purge rate = 0.2 - 0.5 L/minute

Condition of Well: Good.

Remarks: Clear / odor free, D. Mercury was field filtered

FIELD EQUIPMENT

pH Meter HYDROLAB
 Temperature Meter HYDROLAB
 Turbidity Meter HYDROLAB
 Spec. Elec. Cond. Meter HYDROLAB
 ORP Meter HYDROLAB
 D.O. Meter HYDROLAB
 Interface Probe SOLINST
 PID/OVA MINI-RAE
 Pump GEO-PUMP
 Filter Apparatus GEO-.45 MICRON

| | |
|---------------|---------|
| Serial Number | #R40797 |
| Serial Number | #R40797 |
| Serial Number | #R40797 |
| Serial Number | #R40797 |
| Serial Number | #R40797 |
| Serial Number | #R40797 |
| Serial Number | #25582 |
| Serial Number | #00320 |
| Serial Number | BA0041 |

Number of Bottles 2X1LA
1x250mLP

Field Notebook Pg. 57

Sample Method Low Flow

Discharge Water Containerized ☒ Yes ☐ No



TETRA TECH FW, INC.

LOW-FLOW GROUNDWATER
SAMPLING DATA SHEETPage 1 of 1Date 12/13/04

| | | |
|---------------------------------------|-----------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| Well Name <u>W1-22</u> | Screen Interval <u>N/A</u> | Station Elevation <u>GND</u> TOC <u>Immiscible Phases Present</u> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Project <u>CTO 86-Site 1</u> | Static Water Level (from TOC) / Time <u>3.80/0954</u> <u>3.80/0955</u> <u>3.80/0956</u> | |
| Project No. <u>1990.086E</u> | Average Water Level (from TOC) <u>3.80</u> | |
| Well Location <u>Moffett- Site 1</u> | Reference Point <u>TOC</u> | PID Readings (background) <u>Open</u> |
| Sample Date <u>12-14-04</u> | Reference Elevation <u></u> | PID Reading (TOC) <u>Open</u> |
| Sampling Personnel <u>D. HARRISON</u> | Static Elevation <u></u> | Notes <u></u> |
| <u>M. RAMOS</u> | Well Depth MEAS <u>6.75</u> RPTD <u></u> | Feet of Water <u></u> |
| Sample ID <u>86-S1-078</u> | Depth of Bottom of Tubing <u>6.0</u> | |
| Duplicate ID <u>N/A</u> | Depth to Water (w/ Tubing in Well) <u>3.80</u> | |

PURGING

| Time | Discharge Rate ¹ (L/min) | Dissolved Oxygen (mg/L) | pH | Eh/ORP (mV) | Temp. (°C) | Specific Conduct. (µmhos/cm at °C) | Turbidity (NTU) | Cumulative Volume of Water Removed/Purged (Gallons) | PID/OVA Reading | | Depth to Water ² (ft) | Comments |
|------|-------------------------------------|-------------------------|------|-------------|------------|------------------------------------|-----------------|-----------------------------------------------------|-----------------|-------|----------------------------------|----------|
| | | | | | | | | | Location | Value | | |
| 0755 | .4 | 0.97 | 6.86 | 161 | 14.84 | 41347 | 28 | 1.2 | | | 3.82 | |
| 0758 | .4 | 0.40 | 6.95 | 162 | 15.10 | 43995 | 23 | .4 | | | 3.85 | |
| 0801 | .4 | 0.31 | 6.95 | 163 | 15.30 | 43803 | 16 | .4 | | | 3.87 | |
| 0804 | .4 | 0.22 | 6.94 | 164 | 15.32 | 43812 | 12 | .8 | | | 3.88 | |
| 0807 | .4 | 0.21 | 6.84 | 164 | 15.36 | 43822 | 8.9 | 1.0 | | | 3.91 | |
| 0810 | .4 | 0.21 | 6.84 | 165 | 15.44 | 43750 | 7.2 | 1.2 | | | 3.93 | |
| 0812 | Collect Sample | | | | | | | | | | | |
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Notes:

- Purge rate = 0.2 - 0.5 L/minute
- Drawdown shall be <0.33 foot

SAMPLE PARAMETERS

| | | | | | | | | | | | | |
|----------|-----------|--|--|--|--|--|--|--|--|--|--|--|
| 2xSVOC's | 1xD.MERC. | | | | | | | | | | | |
|----------|-----------|--|--|--|--|--|--|--|--|--|--|--|

SAMPLE RATE

| | | | | | | | | | | | | |
|----------|----------|--|--|--|--|--|--|--|--|--|--|--|
| .4 L/min | .4 L/min | | | | | | | | | | | |
|----------|----------|--|--|--|--|--|--|--|--|--|--|--|

Notes:

- Sample rate for VOCs analysis = 0.1 - 0.2 L/minute
- Sample rate for non-VOCs analysis = purge rate = 0.2 - 0.5 L/minute

Condition of Well: GoodRemarks: DK Brn. Turbid / slight H₂S odor. D. Mercury was field filtered.

FIELD EQUIPMENT

| | | |
|-----------------------------------------|------------------------------|---------------------------------------------------------------------------------------------------|
| pH Meter <u>HYDROLAB</u> | Serial Number <u>#R40797</u> | Number of Bottles <u>2x1LA</u> |
| Temperature Meter <u>HYDROLAB</u> | Serial Number <u>#R40797</u> | <u>1x250mLP</u> |
| Turbidity Meter <u>HYDROLAB</u> | Serial Number <u>#R40797</u> | |
| Spec. Elec. Cond. Meter <u>HYDROLAB</u> | Serial Number <u>#R40797</u> | |
| ORP Meter <u>HYDROLAB</u> | Serial Number <u>#R40797</u> | Field Notebook <u>Pg 160</u> |
| D.O. Meter <u>HYDROLAB</u> | Serial Number <u>#R40797</u> | |
| Interface Probe <u>SOLINST</u> | Serial Number <u>#25582</u> | Sample Method <u>Low Flow</u> |
| PID/OVA <u>MINI-RAE</u> | Serial Number <u>#00320</u> | |
| Pump <u>GEO-PUMP</u> | Serial Number <u>BA0041</u> | |
| Filter Apparatus <u>GEO-.45 MICRON</u> | | Discharge Water Containerized <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |

| | | | |
|---------------------------------------|-------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Well Name <u>W1-23</u> | Screen Interval <u>n/a</u> | Station Elevation <u>GND</u> TOC <u> </u> Immiscible Phases Present <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | |
| Project <u>CTO 86-Site 1</u> | Static Water Level (from TOC) / Time <u>5.75/0945</u> | <u>5.75/0946</u> | <u>5.75/0947</u> |
| Project No. <u>1990.086E</u> | Average Water Level (from TOC) <u>2.75</u> | | |
| Well Location <u>Moffett- Site 1</u> | Reference Point <u>TOC</u> | PID Readings (background) <u>0ppm</u> | |
| Sample Date <u>N/A</u> | Reference Elevation <u> </u> | PID Reading (TOC) <u>0ppm</u> | |
| Sampling Personnel <u>D. HARRISON</u> | Static Elevation <u> </u> | Notes <u> </u> | |
| <u>M. RAMOS</u> | Well Depth MEAS <u>RPTD 6.0</u> | Feet of Water <u> </u> | |
| Sample ID <u>86-S1-074</u> | Depth of Bottom of Tubing <u>5.85 n</u> | | |
| Duplicate ID <u>N/A</u> | Depth to Water (w/ Tubing in Well) <u>5.75</u> | | |

[illegible]

Notes:

1. Purge rate = 0.2 - 0.5 L/minute
2. Drawdown shall be <0.33 foot.

SAMPLE PARAMETERS

| | | | | | | | |
|-------|---------|--|--|--|--|--|--|
| SvOCs | D.MERC. | | | | | | |
|-------|---------|--|--|--|--|--|--|

SAMPLE RATE

| | | | | | | | |
|--|--|--|--|--|--|--|--|
| | | | | | | | |
|--|--|--|--|--|--|--|--|

Notes:

1. Sample rate for VOCs analysis = 0.1 - 0.2 L/minute
2. Sample rate for non-VOCs analysis = purge rate = 0.2 - 0.5 L/minute

Condition of Well: Good

Remarks: Brown-turbid water / slight H₂S odor. ~~D. Mercury~~ was field filtered

FIELD EQUIPMENT

| | |
|-------------------------|----------------|
| pH Meter | HYDROLAB |
| Temperature Meter | HYDROLAB |
| Turbidity Meter | HYDROLAB |
| Spec. Elec. Cond. Meter | HYDROLAB |
| ORP Meter | HYDROLAB |
| D.O. Meter | HYDROLAB |
| Interface Probe | SOLINST |
| PID/OVA | MINI-RAE |
| Pump | GEO-PUMP |
| Filter Apparatus | GEO-.45 MICRON |

| | |
|---------------|---------|
| Serial Number | #R40797 |
| Serial Number | #R40797 |
| Serial Number | #R40797 |
| Serial Number | #R40797 |
| Serial Number | #R40797 |
| Serial Number | #R40797 |
| Serial Number | #25582 |
| Serial Number | #00320 |
| Serial Number | BA0041 |

Number of Bottles 2X1LA
1X250mLP

Field Notebook Pg. 58

Sample Method Low Flow

Discharge Water Containerized ☒ Yes ☐ No



TETRA TECH FW, INC.

LOW-FLOW GROUNDWATER
SAMPLING DATA SHEETPage 1 of 1Date 12/13/04

| | | |
|---------------------------------------|-----------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| Well Name <u>W1-24</u> | Screen Interval <u>6-16</u> | Station Elevation <u>GND</u> TOC <u>Immiscible Phases Present</u> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Project <u>CTO 86-Site 1</u> | Static Water Level (from TOC) / Time <u>7.11/0903</u> <u>7.10/0904</u> <u>7.10/0905</u> | |
| Project No. <u>1990.086E</u> | Average Water Level (from TOC) <u>7.10</u> | |
| Well Location <u>Moffett- Site 1</u> | Reference Point <u>TOC</u> | PID Readings (background) <u>0 ppm</u> |
| Sample Date <u>12-14-04</u> | Reference Elevation <u></u> | PID Reading (TOC) <u>0 ppm</u> |
| Sampling Personnel <u>D. HARRISON</u> | Static Elevation <u></u> | Notes <u></u> |
| <u>M. RAMOS</u> | Well Depth MEAS <u>20.25</u> RPTD <u></u> | Feet of Water <u></u> |
| Sample ID <u>86-S1-082</u> | Depth of Bottom of Tubing <u>11</u> | |
| Duplicate ID <u>N/A</u> | Depth to Water (w/ Tubing in Well) <u>7.10</u> | |

PURGING

| Time | Discharge Rate ¹ (L/min) | Dissolved Oxygen (mg/L) | pH | EH/ORP (mV) | Temp. (°C) | Specific Conduct. (µmhos/cm at °C) | Turbidity (NTU) | Cumulative Volume of Water Removed/Purged (Gallons) | PID/OVA Reading | | Depth to Water ² (ft) | Comments |
|------|-------------------------------------|-------------------------|------|-------------|------------|------------------------------------|-----------------|-----------------------------------------------------|-----------------|-------|----------------------------------|----------|
| | | | | | | | | | Location | Value | | |
| 0945 | .4 | 0.40 | 6.90 | 149 | 15.95 | 60989 | 2.0 | .2 | | | 7.11 | |
| 0948 | .4 | 0.22 | 6.94 | 143 | 16.05 | 61180 | 1.8 | .4 | | | 7.12 | |
| 0951 | .4 | 0.13 | 6.94 | 152 | 16.21 | 61625 | 1.3 | .6 | | | 7.13 | |
| 0954 | .4 | 0.09 | 6.92 | 156 | 16.45 | 62172 | 0.12 | .8 | | | 7.15 | |
| 0957 | .4 | 0.09 | 6.90 | 155 | 16.59 | 62417 | 0.1 | 1.3 | | | 7.16 | |
| 1000 | .4 | | | | | | | | | | | |
| 1005 | Collect Sample | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

Notes:

- Purge rate = 0.2 - 0.5 L/minute
- Drawdown shall be <0.33 foot

SAMPLE PARAMETERS

| | | | | | | | | | | | | |
|--------|---------|--|--|--|--|--|--|--|--|--|--|--|
| SVOC's | D.MERC. | | | | | | | | | | | |
|--------|---------|--|--|--|--|--|--|--|--|--|--|--|

SAMPLE RATE

| | | | | | | | | | | | | |
|----------|----------|--|--|--|--|--|--|--|--|--|--|--|
| .4 L/min | .4 L/min | | | | | | | | | | | |
|----------|----------|--|--|--|--|--|--|--|--|--|--|--|

Notes:

- Sample rate for VOCs analysis = 0.1 - 0.2 L/minute
- Sample rate for non-VOCs analysis = purge rate = 0.2 - 0.5 L/minute

Condition of Well: GoodRemarks: Slight br. turbid / Slight H₂S odor. D. Merc. was field filtered

FIELD EQUIPMENT

| | | |
|-----------------------------------------|------------------------------|---------------------------------------------------------------------------------------------------|
| pH Meter <u>HYDROLAB</u> | Serial Number <u>#R40797</u> | Number of Bottles <u>2x1LA</u> |
| Temperature Meter <u>HYDROLAB</u> | Serial Number <u>#R40797</u> | <u>2x250mLP</u> |
| Turbidity Meter <u>HYDROLAB</u> | Serial Number <u>#R40797</u> | |
| Spec. Elec. Cond. Meter <u>HYDROLAB</u> | Serial Number <u>#R40797</u> | |
| ORP Meter <u>HYDROLAB</u> | Serial Number <u>#R40797</u> | Field Notebook <u>pg. 62</u> |
| D.O. Meter <u>HYDROLAB</u> | Serial Number <u>#R40797</u> | |
| Interface Probe <u>SOLINST</u> | Serial Number <u>#25582</u> | Sample Method <u>Low Flow</u> |
| PID/OVA <u>MINI-RAE</u> | Serial Number <u>#00320</u> | |
| Pump <u>GEO-PUMP</u> | Serial Number <u>BA0041</u> | |
| Filter Apparatus <u>GEO-45 MICRON</u> | | Discharge Water Containerized <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |

APPENDIX B

**ANALYTICAL SUMMARY TABLES
AND CCL EVALUATION TABLES**

LIST OF APPENDIX B TABLES

Regularly Scheduled Sampling

| | |
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| Table B-1 | March 2004 Validated Analytical Results, Site 1 Landfill |
| Table B-2 | May 2004 Validated Analytical Results, Site 1 Landfill |
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Supplemental Sampling

| | |
|-----------|----------------------------------------------------------------------------------------------------|
| Table B-4 | July 2004 Analytical Results for Dissolved Mercury and Semivolatile Organic Compounds, Site 1 |
| Table B-5 | August 2004 Analytical Results for Dissolved Mercury and Semivolatile Organic Compounds, Site 1 |
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Statistical Evaluation

| | |
|------------|----------------------------|
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REGULARLY SCHEDULED SAMPLING

TABLE B-1
MARCH 2004 VALIDATED ANALYTICAL RESULTS, SITE 1 LANDFILL
FORMER NAS MOFFETT FIELD

| COC | 71-S1-017 W1-1 3/29/04 | 71-S1-018 W1-15 3/29/04 | 71-S1-019 W1-19 3/30/04 | 71-S1-020 W1-19 (DUP) 3/30/04 | 71-S1-022 W1-14 3/30/04 | 71-S1-023 W1-12R 3/29/04 | 71-S1-024 W1-22 ^a 3/29/04 | 71-S1-025 W1-5 3/30/04 | 71-S1-026 W1-8 3/30/04 | 71-S1-027 W1-8 (DUP) 3/30/04 | 71-S1-028 W1-24 3/31/04 | 71-S1-029 W1-16 3/31/04 |
|--------------------------------|------------------------------|-------------------------------|-------------------------------|-------------------------------------|-------------------------------|--------------------------------|--------------------------------------------|------------------------------|------------------------------|------------------------------------|-------------------------------|-------------------------------|
| <i>Total Metals (µg/L)</i> | | | | | | | | | | | | |
| Aluminum | 4,000 U | 4,000 U | 1,230 J | 4,000 U | 4,000 U | 4,000 U | 1,320 J | 2,610 J | 4,000 U | 4,000 U | 4,000 U | 4,000 U |
| Antimony | 2,000 U | 2,000 U | 2,000 U | 2,000 U | 2,000 U | 2,000 U | 2,000 U | 2,000 U | 2,000 U | 2,000 U | 2,000 U | 2,000 U |
| Arsenic | 100 U | 100 U | 100 U | 100 U | 100 U | 100 U | 100 U | 100 U | 100 U | 100 U | 100 U | 100 U |
| Barium | 69.6 J | 148 J | 81 J | 74.8 J | 160 J | 80.8 J | 311 | 491 | 117 J | 111 J | 208 | 359 |
| Beryllium | 200 U | 200 U | 200 U | 200 U | 200 U | 200 U | 200 U | 200 U | 200 U | 200 U | 200 U | 200 U |
| Cadmium | 200 U | 200 U | 200 U | 200 U | 200 U | 200 U | 200 U | 200 U | 200 U | 200 U | 200 U | 200 U |
| Chromium | 400 U | 400 U | 400 U | 400 U | 400 U | 400 U | 400 U | 400 U | 400 U | 400 U | 400 U | 400 U |
| Cobalt | 400 U | 400 U | 400 U | 400 U | 400 U | 400 U | 400 U | 400 U | 400 U | 400 U | 400 U | 400 U |
| Copper | 200 U | 200 U | 200 U | 200 U | 200 U | 200 U | 200 U | 200 U | 200 U | 200 U | 200 U | 200 U |
| Lead | 100 U | 100 U | 100 U | 100 U | 100 U | 100 U | 100 U | 100 U | 100 U | 100 U | 100 U | 100 U |
| Mercury | 500 U | 500 U | 500 U | 500 U | 500 U | 500 U | 500 U | 500 U | 500 U | 500 U | 500 U | 500 U |
| Nickel | 400 U | 400 U | 400 U | 400 U | 400 U | 206 J | 400 U | 400 U | 400 U | 400 U | 400 U | 400 U |
| Selenium | 52.3 J | 52.3 J | 100 U | 100 U | 100 U | 100 U | 100 U | 100 U | 100 U | 100 U | 100 U | 100 U |
| Silver | 400 U | 400 U | 400 U | 400 U | 400 U | 400 U | 400 U | 400 U | 400 U | 400 U | 400 U | 400 U |
| Thallium | 100 U | 100 U | 100 U | 100 U | 100 U | 100 U | 62.9 J | 100 U | 100 U | 100 U | 56.6 J | 100 U |
| Vanadium | 200 U | 200 U | 200 U | 200 U | 200 U | 200 U | 200 U | 200 U | 200 U | 200 U | 200 U | 200 U |
| Zinc | 400 U | 400 U | 400 U | 400 U | 400 U | 400 U | 400 U | 400 U | 400 U | 400 U | 400 U | 400 U |
| <i>Dissolved Metals (µg/L)</i> | | | | | | | | | | | | |
| Aluminum | 4,000 U | 4,000 U | 4,000 U | 4,000 U | 4,000 U | 4,000 U | 4,000 U | 4,000 U | 4,000 U ^b | 4,000 U ^b | 4,000 U ^b | 3,800 J |
| Antimony | 2,000 U | 2,000 U | 2,000 U | 2,000 U | 2,000 U | 2,000 U | 2,000 U | 2,000 U | 2,000 U | 2,000 U | 2,000 U | 2,000 U |
| Arsenic | 100 U | 100 U | 100 U | 100 U | 100 U | 100 U | 100 U | 100 U | 100 U | 100 U | 100 U | 100 U |
| Barium | 66.6 J | 157 J | 81.8 J | 83.4 J | 145 J | 75.8 J | 313 | 485 | 121 J | 164 J | 246 | 384 |
| Beryllium | 200 U | 200 U | 200 U | 200 U | 200 U | 200 U | 200 U | 200 U | 200 U | 200 U | 200 U | 200 U |
| Cadmium | 200 U | 200 U | 200 U | 200 U | 200 U | 200 U | 200 U | 200 U | 200 U | 200 U | 200 U | 200 U |
| Chromium | 400 U | 400 U | 400 U | 400 U | 400 U | 400 U | 400 U | 400 U | 400 U | 107 J | 400 U | 400 U |
| Cobalt | 400 U | 400 U | 400 U | 400 U | 400 U | 400 U | 400 U | 400 U | 400 U | 400 U | 400 U | 400 U |
| Copper | 200 U | 200 U | 200 U | 200 U | 200 U | 200 U | 200 U | 200 U | 200 U | 200 U | 200 U | 200 U |
| Lead | 100 U | 100 U | 100 U | 100 U | 100 U | 100 U | 100 U | 100 U | 100 U | 100 U | 100 U | 100 U |
| Mercury | 500 U | 500 U | 500 U | 500 U | 500 U | 500 U | 500 U | 500 U | 500 U | 500 U | 500 U | 500 U |
| Nickel | 400 U | 400 U | 400 U | 400 U | 400 U | 400 U | 400 U | 400 U | 400 U | 400 U | 400 U | 400 U |
| Selenium | 100 U | 100 U | 100 U | 100 U | 100 U | 100 U | 100 U | 100 U | 100 U | 100 U | 100 U | 100 U |
| Silver | 400 U | 400 U | 400 U | 400 U | 400 U | 400 U | 400 U | 400 U | 400 U | 400 U | 400 U | 400 U |
| Thallium | 100 U | 100 U | 100 U | 100 U | 100 U | 100 U | 100 U | 100 U | 100 U | 100 U | 100 U | 100 U |
| Vanadium | 200 U | 200 U | 200 U | 200 U | 200 U | 200 U | 200 U | 200 U | 200 U | 200 U | 200 U | 200 U |
| Zinc | 400 U | 400 U | 400 U | 400 U | 400 U | 400 U | 400 U | 400 U | 400 U | 102 J | 400 U | 400 U |

TABLE B-1
MARCH 2004 VALIDATED ANALYTICAL RESULTS, SITE 1 LANDFILL
FORMER NAS MOFFETT FIELD

| COC | 71-S1-017 W1-1 3/29/04 | 71-S1-018 W1-15 3/29/04 | 71-S1-019 W1-19 3/30/04 | 71-S1-020 W1-19 (DUP) 3/30/04 | 71-S1-022 W1-14 3/30/04 | 71-S1-023 W1-12R 3/29/04 | 71-S1-024 W1-22 ^a 3/29/04 | 71-S1-025 W1-5 3/30/04 | 71-S1-026 W1-8 3/30/04 | 71-S1-027 W1-8 (DUP) 3/30/04 | 71-S1-028 W1-24 3/31/04 | 71-S1-029 W1-16 3/31/04 |
|-----------------------------|------------------------------|-------------------------------|-------------------------------|-------------------------------------|-------------------------------|--------------------------------|--------------------------------------------|------------------------------|------------------------------|------------------------------------|-------------------------------|-------------------------------|
| <i>FOCs (µg/L)</i> | | | | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 U |
| 1,1,1-Trichloroethane | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 U |
| 1,1,2,2-Tetrachloroethane | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 UJ | 1 UJ | 1 UJ | 1 U | 1 U |
| 1,1,2-Trichloroethane | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 U |
| 1,1-Dichloroethane | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 U |
| 1,1-Dichloroethene | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 U |
| 1,1-Dichloropropene | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 U |
| 1,2,3-Trichlorobenzene | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 U |
| 1,2,3-Trichloropropane | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 U |
| 1,2,4-Trichlorobenzene | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 U |
| 1,2,4-Trimethylbenzene | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 U |
| 1,2-Dibromo-3-chloropropane | 2 U | 2 U | 2 U | 2 U | 2 U | 2 U | 2 U | 2 UJ | 2 UJ | 2 UJ | 2 U | 2 U |
| 1,2-Dichlorobenzene | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 U |
| 1,2-Dichloroethane | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 U |
| 1,2-Dichloropropane | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 U |
| 1,3,5-Trimethylbenzene | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 U |
| 1,3-Dichlorobenzene | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 U |
| 1,3-Dichloropropane | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 U |
| 1,4-Dichlorobenzene | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 U |
| 2,2-Dichloropropane | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 U |
| 2-Butanone | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 UJ | 10 UJ | 10 UJ | 10 U | 10 U |
| 2-Chlorotoluene | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 U |
| 2-Hexanone | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 UJ | 10 UJ | 10 UJ | 10 U | 10 U |
| 4-Chlorotoluene | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 U |
| 4-Methyl-2-pentanone | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 UJ | 10 UJ | 10 UJ | 10 U | 10 U |
| Acetone | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 6 J | 10 UJ | 10 UJ | 10 UJ | 10 U | 10 U |
| Benzene | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 U |
| Bromobenzene | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 U |
| Bromochloromethane | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 U |
| Bromodichloromethane | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 U |
| Bromoform | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 U |
| Bromomethane | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 UJ | 1 UJ | 1 UJ | 1 U | 1 U |
| Carbon disulfide | 0.5 UJ | 0.21 J | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U |
| Carbon tetrachloride | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 U |
| Chlorobenzene | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 U |
| Chloroethane | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 UJ | 1 UJ | 1 UJ | 1 U | 1 U |
| Chloroform | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 U |
| Chloromethane | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 UJ | 1 UJ | 1 UJ | 1 U | 1 U |

TABLE B-1
MARCH 2004 VALIDATED ANALYTICAL RESULTS, SITE 1 LANDFILL
FORMER NAS MOFFETT FIELD

| COC | 71-S1-017 W1-1 3/29/04 | 71-S1-018 W1-15 3/29/04 | 71-S1-019 W1-19 3/30/04 | 71-S1-020 W1-19 (DUP) 3/30/04 | 71-S1-022 W1-14 3/30/04 | 71-S1-023 W1-12R 3/29/04 | 71-S1-024 W1-22 ^a 3/29/04 | 71-S1-025 W1-5 3/30/04 | 71-S1-026 W1-8 3/30/04 | 71-S1-027 W1-8 (DUP) 3/30/04 | 71-S1-028 W1-24 3/31/04 | 71-S1-029 W1-16 3/31/04 |
|---------------------------|------------------------------|-------------------------------|-------------------------------|-------------------------------------|-------------------------------|--------------------------------|--------------------------------------------|------------------------------|------------------------------|------------------------------------|-------------------------------|-------------------------------|
| cis-1,2-Dichloroethene | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 U |
| cis-1,3-Dichloropropene | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 U |
| Dibromochloromethane | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 U |
| Dibromomethane | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 U |
| Dichlorodifluoromethane | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 UJ | 1 UJ | 1 UJ | 1 U | 1 U |
| Ethylbenzene | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 U |
| Hexachlorobutadiene | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 U |
| Isopropylbenzene | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 U |
| m,p-Xylene | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 UJ | 1 UJ | 1 UJ | 1 U | 1 U |
| Methylene chloride | 2 U | 2 U | 2 U | 2 U | 2 U | 2 U | 2 U | 2 UJ | 2 UJ | 2 UJ | 2 U | 2 U |
| Naphthalene | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 U |
| n-Butylbenzene | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 U |
| n-Propylbenzene | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 U |
| o-Xylene | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 U |
| p-Isopropyltoluene | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 U |
| sec-Butylbenzene | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 U |
| Styrene | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 U |
| tert-Butylbenzene | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 U |
| Tetrachloroethene | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 U |
| Toluene | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 U |
| trans-1,2-Dichloroethene | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 U |
| trans-1,3-Dichloropropene | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 U |
| Trichloroethene | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 U |
| Trichlorofluoromethane | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 UJ | 1 UJ | 1 UJ | 1 U | 1 U |
| Vinyl chloride | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 UJ | 1 UJ | 1 UJ | 1 U | 1 U |
| PCBs (µg/L) | | | | | | | | | | | | |
| Aroclor-1016 | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 1 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U |
| Aroclor-1221 | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 1 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U |
| Aroclor-1232 | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 1 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U |
| Aroclor-1242 | 1.9 U | 1.9 U | 1.9 U | 1.9 U | 1.9 U | 2 U | 1.9 U | 1.9 U | 1.9 U | 1.9 U | 1.9 U | 1.9 U |
| Aroclor-1248 | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 1 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U |
| Aroclor-1254 | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 1 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U |
| Aroclor-1260 | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 1 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U |
| Pesticides (µg/L) | | | | | | | | | | | | |
| 4,4'-DDD | 0.094 UJ | 0.094 UJ | 0.094 UJ | 0.094 U | 0.094 UJ | 0.1 UJ | 0.039 J | 0.094 UJ | 0.094 UJ | 0.094 UJ | 0.094 UJ | 0.094 UJ |
| 4,4'-DDE | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.1 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U |
| 4,4'-DDT | 0.094 UJ | 0.094 UJ | 0.094 UJ | 0.094 U | 0.094 UJ | 0.1 UJ | 0.094 UJ | 0.094 UJ | 0.094 UJ | 0.094 UJ | 0.094 UJ | 0.094 UJ |
| Aldrin | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.05 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U |
| alpha-BHC | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.05 U | 0.033 J | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.018 J |

TABLE B-1
MARCH 2004 VALIDATED ANALYTICAL RESULTS, SITE 1 LANDFILL
FORMER NAS MOFFETT FIELD

| COC | 71-S1-017 W1-1 3/29/04 | 71-S1-018 W1-15 3/29/04 | 71-S1-019 W1-19 3/30/04 | 71-S1-020 W1-19 (DUP) 3/30/04 | 71-S1-022 W1-14 3/30/04 | 71-S1-023 W1-12R 3/29/04 | 71-S1-024 W1-22 ^a 3/29/04 | 71-S1-025 W1-5 3/30/04 | 71-S1-026 W1-8 3/30/04 | 71-S1-027 W1-8 (DUP) 3/30/04 | 71-S1-028 W1-24 3/31/04 | 71-S1-029 W1-16 3/31/04 |
|---------------------------------|------------------------------|-------------------------------|-------------------------------|-------------------------------------|-------------------------------|--------------------------------|--------------------------------------------|------------------------------|------------------------------|------------------------------------|-------------------------------|-------------------------------|
| alpha-Chlordane | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.05 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U |
| beta-BHC | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.05 U | 0.047 U | 0.029 J | 0.047 U | 0.047 U | 0.047 U | 0.047 J |
| delta-BHC | 0.047 UJ | 0.047 UJ | 0.047 UJ | 0.047 U | 0.047 UJ | 0.05 UJ | 0.047 UJ | 0.047 UJ | 0.047 UJ | 0.047 UJ | 0.047 UJ | 0.03 J |
| Dieldrin | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.1 U | 0.05 J | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U |
| Endosulfan I | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.05 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U |
| Endosulfan II | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.1 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U |
| Endosulfan sulfate | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.1 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U |
| Endrin | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.1 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U |
| Endrin aldehyde | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.1 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U |
| Endrin ketone | 0.094 UJ | 0.094 UJ | 0.094 UJ | 0.094 U | 0.094 UJ | 0.1 UJ | 0.094 UJ | 0.094 UJ | 0.094 UJ | 0.094 UJ | 0.094 UJ | 0.094 UJ |
| gamma-BHC (Lindane) | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.05 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U |
| gamma-Chlordane | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.05 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U |
| Heptachlor | 0.047 UJ | 0.047 UJ | 0.013 J | 0.047 U | 0.047 UJ | 0.05 UJ | 0.047 UJ | 0.047 UJ | 0.047 UJ | 0.047 UJ | 0.047 UJ | 0.047 UJ |
| Heptachlor epoxide | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.05 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U |
| Methoxychlor | 0.47 UJ | 0.47 UJ | 0.47 UJ | 0.47 U | 0.47 UJ | 0.5 UJ | 0.47 UJ | 0.47 UJ | 0.47 UJ | 0.47 UJ | 0.47 UJ | 0.47 UJ |
| Toxaphene | 2.8 U | 2.8 U | 2.8 U | 2.8 U | 2.8 U | 3 U | 2.8 U | 2.8 U | 2.8 U | 2.8 U | 2.8 U | 2.8 U |
| <i>General Chemistry (mg/L)</i> | | | | | | | | | | | | |
| Nitrate as Nitrogen | 0.14 | 0.1 U | 0.1 U | 0.1 U | 0.118 | 1.11 | 0.527 | 1.68 | 2.95 | 2.99 | 0.215 | 0.1 U |
| TOC | 6.07 | 12.90 | 9.41 | 9.00 | 11.80 | 6.48 | 95.30 | 11.30 | 10.00 | 10.00 | 22.00 | 18.00 |

Notes:^a – Well W1-22 is a collection trench well not representative of groundwater at Site 1

^b – Aluminum was detected but was not confirmed in the Trace-ICP run and lab contamination was suspected during dilution process. Therefore, the result was reported from the Trace-ICT re-run on 04/26/04. Shading indicates concentration above the calculated concentration limit.

Metals analysis was conducted using Environmental Protection Agency (EPA) Test Method 6010B. Per the *Final Technical Memorandum Site 1 Groundwater Evaluation Process*, issued on April 8, 2004, future dissolved metals sampling will be performed using EPA Test Method 200.8.

Abbreviations and Acronyms:

µg/L – micrograms per liter

mg/L – milligrams per liter

BHC – benzenehexachloride

COC – constituent of concern

DDD – dichlorodiphenyldichloroethane

DDE – dichlorodiphenyltrichloroethylene

DDT – dichlorodiphenyltrichloroethane

DUP – duplicate sample

J – estimated value

NAS – Naval Air Station

PCB – polychlorinated biphenyl

TOC – total organic carbon

U – analyte not detected above project reporting limit

UJ – analyte not detected above the estimated reporting limit

VOC – volatile organic compound

TABLE B-2
MAY 2004 VALIDATED ANALYTICAL RESULTS, SITE 1 LANDFILL
FORMER NAS MOFFETT FIELD

| COC | 86-S1-001 W1-1 5/24/04 | 86-S1-002 W1-1 (DUP) 5/24/04 | 86-S1-003 W1-15 5/24/04 | 86-S1-004 W1-19 5/25/04 | 86-S1-006 W1-14 5/25/04 | 86-S1-007 W1-14 (DUP) 5/25/04 | 86-S1-008 W1-12R 5/25/04 | 86-S1-009 W1-22 ^a 5/26/04 | 86-S1-010 W1-5 5/26/04 | 86-S1-011 W1-8 5/26/04 | 86-S1-012 W1-24 5/26/04 | 86-S1-013 W1-16 5/26/04 |
|---------------------------------------------------------------------------|------------------------------|------------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------------|--------------------------------|--------------------------------------------|------------------------------|------------------------------|-------------------------------|-------------------------------|
| Dissolved Metals (µg/L) EPA Method 200.8 (unless otherwise noted) | | | | | | | | | | | | |
| Aluminum (EPA Method 6010B) | 50U | 50U | 50U | 50U | 50U | 50U | 50U | 50U | 50U | 50U | 50U | 50U |
| Antimony | 1.02 U | 0.9 U | 0.98 U | 2.2 | 0.9U | 0.9U | 0.93 U | 0.65 U | 2.09 | 1.86 U | 2.14 | 2.25 J |
| Arsenic | 0.63 J | 0.6 J | 5.17 | 3.04 J | 5.35 J | 4.92J | 2.24 J | 2.56 J | 3.62 J | 1.57 J | 6.78 J | 6.43 J |
| Barium | 71.5 | 72J | 181 | 86.6 | 152 | 155 J | 78.2 | 357 | 524 | 130 | 214 | 229 J |
| Beryllium | 0.007 U | 0.006 U | 0.016 J | 0.009 U | 0.01 U | 0.011U | 0.006 U | 0.023 J | 0.007 U | 0.006 U | 0.014 J | 0.013 J |
| Cadmium | 0.171 | 0.185 J | 0.006 U | 0.414 | 0.011 J | 0.009U | 0.066 | 0.006 U | 0.012 J | 0.134 | 0.006 U | 0.054 J |
| Chromium | 0.72 | 0.64J | 1.76 | 0.37 J | 0.56 | 0.54J | 0.46 | 3.84 | 0.8 | 0.43 | 1.23 | 0.49 J |
| Cobalt | 3.49 J | 3.41J | 2.65 | 8.24 J | 7.16 J | 7.69 J | 5.67 J | 0.956 J | 3.09 J | 0.882 J | 4.65 J | 5.61 J |
| Copper | 0.51 | 0.5 J | 0.22 | 1.56 | 0.14 J | 0.11 J | 0.17 J | 0.38 | 0.08 J | 0.26 | 0.19 J | 0.13 J |
| Lead | 0.023 J | 0.02J | 0.018 U | 0.076 | 0.02 J | 0.022J | 0.018 U | 0.018 U | 0.018 U | 0.018 U | 0.024 J | 0.247 J |
| Mercury (EPA Method 7470A) | 4 UJ | 4 UJ | 4 UJ | 4 UJ | 4 UJ | 4 UJ | 4 UJ | 4 UJ | 4 UJ | 4 UJ | 4 UJ | 4 UJ |
| Nickel | 19.4 | 19.6 J | 6.06 | 13 | 9.47 | 9.72J | 41 | 75.9 | 6.86 | 5.66 | 14.8 | 14.4 J |
| Selenium (EPA Method 7742) | 0.3 U | 0.3 U | 0.3 U | 0.3 U | 0.3 U | 0.3U | 0.3 U | 0.3 U | 0.3 U | 0.3 U | 0.3 U | 0.3 U |
| Silver | 0.054 | 0.033J | 0.011 J | 0.02 J | 0.016 J | 0.033 J | 0.038 J | 0.01 U | 0.01 U | 0.034 J | 0.016 J | 0.239 J |
| Thallium | 0.066 | 0.065J | 0.001 U | 0.067 | 0.006 U | 0.006U | 0.022 J | 0.002 U | 0.016 U | 0.025 J | 0.008 U | 0.008 U |
| Vanadium (EPA Method 6010B) | 11.8 | 6 U | 6 U | 6 U | 9 J | 6 U | 6 U | 6 U | 10.2 | 6 U | 6.8 J | 6 U |
| Zinc | 7020 | 8810^b | 2.38 J | 3.4 J | 1.22 J | 1.19J | 41.3 J | 26.3 J | 0.87 J | 3.74 J | 1.17 J | 0.46 J |
| VOCs (µg/L) EPA Method 8260B | | | | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 UJ | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| 1,1,1-Trichloroethane | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 UJ | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| 1,1,2,2-Tetrachloroethane | 1 U | 1 U | 1 UJ | 1 UJ | 1 UJ | 1 UJ | 1 U | 1 UJ | 1 U | 1 U | 1 U | 1 U |
| 1,1,2-Trichloroethane | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 UJ | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| 1,1-Dichloroethane | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 UJ | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| 1,1-Dichloroethene | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 UJ | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| 1,1-Dichloropropene | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| 1,2,3-Trichlorobenzene | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 UJ | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| 1,2,3-Trichloropropane | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 UJ | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| 1,2,4-Trichlorobenzene | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 UJ | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| 1,2,4-Trimethylbenzene | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 UJ | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| 1,2-Dibromo-3-chloropropane | 2 U | 2 U | 2 UJ | 2 UJ | 2 UJ | 2 UJ | 2 U | 2 UJ | 2 U | 2 U | 2 U | 2 U |
| 1,2-Dichlorobenzene | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 UJ | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| 1,2-Dichloroethane | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 UJ | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| 1,2-Dichloropropane | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 UJ | 0.5 U | 0.5 U | 0.5 U | 0.5 U |

TABLE B-2
MAY 2004 VALIDATED ANALYTICAL RESULTS, SITE 1 LANDFILL
FORMER NAS MOFFETT FIELD

| COC | 86-S1-001 W1-1 5/24/04 | 86-S1-002 W1-1 (DUP) 5/24/04 | 86-S1-003 W1-15 5/24/04 | 86-S1-004 W1-19 5/25/04 | 86-S1-006 W1-14 5/25/04 | 86-S1-007 W1-14 (DUP) 5/25/04 | 86-S1-008 W1-12R 5/25/04 | 86-S1-009 W1-22 5/26/04 | 86-S1-010 W1-5 5/26/04 | 86-S1-011 W1-8 5/26/04 | 86-S1-012 W1-24 5/26/04 | 86-S1-013 W1-16 5/26/04 |
|-------------------------|------------------------------|------------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------------|--------------------------------|-------------------------------|------------------------------|------------------------------|-------------------------------|-------------------------------|
| 1,3,5-Trimethylbenzene | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 UJ | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| 1,3-Dichlorobenzene | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 UJ | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| 1,3-Dichloropropane | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 UJ | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| 1,4-Dichlorobenzene | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 UJ | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| 2,2-Dichloropropane | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 UJ | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| 2-Butanone | 10 U | 10 U | 10 UJ | 10 UJ | 10 UJ | 10 UJ | 10 U | 10 UJ | 10 U | 10 U | 10 U | 10 U |
| 2-Chlorotoluene | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 UJ | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| 2-Hexanone | 10 U | 10 U | 10 UJ | 10 UJ | 10 UJ | 10 UJ | 10 U | 10 UJ | 10 UJ | 10 UJ | 10 UJ | 10 UJ |
| 4-Chlorotoluene | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 UJ | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| 4-Methyl-2-pentanone | 10 U | 10 U | 10 UJ | 10 UJ | 10 UJ | 10 UJ | 10 U | 10 UJ | 10 UJ | 10 UJ | 10 UJ | 10 UJ |
| Acetone | 10 U | 10 U | 10 UJ | 10 UJ | 10 UJ | 10 UJ | 10 U | 2.9 J | 10 U | 10 U | 2.8 J | 10 U |
| Benzene | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 UJ | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| Bromobenzene | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 UJ | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| Bromochloromethane | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 UJ | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| Bromodichloromethane | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 UJ | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| Bromoform | 1 U | 1 U | 1 UJ | 1 UJ | 1 UJ | 1 UJ | 1 U | 1 UJ | 1 U | 1 U | 1 U | 1 U |
| Bromomethane | 1 U | 1 U | 1 UJ | 1 UJ | 1 UJ | 1 UJ | 1 U | 1 UJ | 1 UJ | 1 UJ | 1 UJ | 1 UJ |
| Carbon disulfide | 0.5 U | 0.5 U | 0.24 J | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 UJ | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| Carbon tetrachloride | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 UJ | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| Chlorobenzene | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 UJ | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| Chloroethane | 1 U | 1 U | 1 UJ | 1 UJ | 1 UJ | 1 UJ | 1 U | 1 UJ | 1 U | 1 U | 1 U | 1 U |
| Chloroform | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 UJ | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| Chloromethane | 1 UJ | 1 UJ | 1 UJ | 1 UJ | 1 UJ | 1 UJ | 1 UJ | 1 UJ | 1 UJ | 1 UJ | 1 UJ | 1 UJ |
| cis-1,2-Dichloroethene | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 UJ | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| cis-1,3-Dichloropropene | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 UJ | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| Dibromochloromethane | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 UJ | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| Dibromomethane | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 UJ | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| Dichlorodifluoromethane | 1 UJ | 1 UJ | 1 UJ | 1 UJ | 1 UJ | 1 UJ | 1 UJ | 1 UJ | 1 U | 1 U | 1 U | 1 U |
| Ethylbenzene | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 UJ | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| Hexachlorobutadiene | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 UJ | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| Isopropylbenzene | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 UJ | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| Methylene chloride | 2 U | 2 U | 2 UJ | 2 UJ | 2 UJ | 2 UJ | 2 U | 2 UJ | 2 U | 2 U | 2 U | 2 U |

TABLE B-2
MAY 2004 VALIDATED ANALYTICAL RESULTS, SITE 1 LANDFILL
FORMER NAS MOFFETT FIELD

| COC | 86-S1-001 W1-1 5/24/04 | 86-S1-002 W1-1 (DUP) 5/24/04 | 86-S1-003 W1-15 5/24/04 | 86-S1-004 W1-19 5/25/04 | 86-S1-006 W1-14 5/25/04 | 86-S1-007 W1-14 (DUP) 5/25/04 | 86-S1-008 W1-12R 5/25/04 | 86-S1-009 W1-22 5/26/04 | 86-S1-010 W1-5 5/26/04 | 86-S1-011 W1-8 5/26/04 | 86-S1-012 W1-24 5/26/04 | 86-S1-013 W1-16 5/26/04 |
|-------------------------------------------|------------------------------|------------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------------|--------------------------------|-------------------------------|------------------------------|------------------------------|-------------------------------|-------------------------------|
| m,p-Xylene | 1 U | 1 U | 1 UJ | 1 UJ | 1 UJ | 1 UJ | 1 U | 1 UJ | 1 U | 1 U | 1 U | 1 U |
| Naphthalene | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 UJ | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| n-Butylbenzene | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| n-Propylbenzene | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 UJ | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| o-Xylene | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 UJ | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| p-Isopropyltoluene | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 UJ | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| sec-Butylbenzene | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 UJ | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| Styrene | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 UJ | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| tert-Butylbenzene | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 UJ | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| Tetrachloroethene | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 UJ | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| Toluene | 0.54 | 0.71 | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 UJ | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| trans-1,2-Dichloroethene | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 UJ | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| trans-1,3-Dichloropropene | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 UJ | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| Trichloroethene | 0.5 U | 0.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 U | 0.5 UJ | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| Trichlorofluoromethane | 1 U | 1 U | 1 UJ | 1 UJ | 1 UJ | 1 UJ | 1 U | 1 UJ | 1 U | 1 U | 1 U | 1 U |
| Vinyl chloride | 1 UJ | 1 UJ | 1 UJ | 1 UJ | 1 UJ | 1 UJ | 1 UJ | 1 UJ | 1 U | 1 U | 1 U | 1 U |
| PCBs (µg/L) EPA Method 8082 | | | | | | | | | | | | |
| Aroclor-1016 | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U |
| Aroclor-1221 | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U |
| Aroclor-1232 | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U |
| Aroclor-1242 | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U |
| Aroclor-1248 | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U |
| Aroclor-1254 | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U |
| Aroclor-1260 | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U |
| Pesticides (µg/L) EPA Method 8081A | | | | | | | | | | | | |
| 4,4'-DDD | 0.094 U | 0.094 U | 0.094 U | 0.094 UJ | 0.094 UJ | 0.094 UJ | 0.094 UJ | 0.094 UJ | 0.094 U | 0.094 UJ | 0.094 UJ | 0.094 UJ |
| 4,4'-DDE | 0.094 U | 0.094 U | 0.094 U | 0.094 UJ | 0.094 UJ | 0.094 UJ | 0.094 UJ | 0.094 UJ | 0.094 U | 0.094 UJ | 0.094 UJ | 0.094 UJ |
| 4,4'-DDT | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U |
| Aldrin | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U |
| alpha-BHC | 0.047 U | 0.047 U | 0.061 | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U |
| alpha-Chlordane | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U |
| beta-BHC | 0.047 U | 0.047 U | 0.38 | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U |
| delta-BHC | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 UJ | 0.047 U | 0.047 U | 0.047 U |

TABLE B-2
MAY 2004 VALIDATED ANALYTICAL RESULTS, SITE 1 LANDFILL
FORMER NAS MOFFETT FIELD

| COC | 86-S1-001 W1-1 5/24/04 | 86-S1-002 W1-1 (DUP) 5/24/04 | 86-S1-003 W1-15 5/24/04 | 86-S1-004 W1-19 5/25/04 | 86-S1-006 W1-14 5/25/04 | 86-S1-007 W1-14 (DUP) 5/25/04 | 86-S1-008 W1-12R 5/25/04 | 86-S1-009 W1-22 5/26/04 | 86-S1-010 W1-5 5/26/04 | 86-S1-011 W1-8 5/26/04 | 86-S1-012 W1-24 5/26/04 | 86-S1-013 W1-16 5/26/04 |
|--------------------------------------|------------------------------|------------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------------|--------------------------------|-------------------------------|------------------------------|------------------------------|-------------------------------|-------------------------------|
| Dieldrin | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U |
| Endosulfan I | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U |
| Endosulfan II | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U |
| Endosulfan sulfate | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U |
| Endrin | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U |
| Endrin aldehyde | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U |
| Endrin ketone | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U |
| gamma-BHC (Lindane) | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U |
| gamma-Chlordane | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.053 | 0.047 U | 0.047 U | 0.047 U | 0.047 U |
| Heptachlor | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U |
| Heptachlor epoxide | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U |
| Methoxychlor | 0.47 U | 0.47 U | 0.47 U | 0.47 U | 0.47 U | 0.47 U | 0.47 U | 0.47 U | 0.47 U | 0.47 U | 0.47 U | 0.47 U |
| Toxaphene | 2.8 U | 2.8 U | 2.8 U | 2.8 U | 2.8 U | 2.8 U | 2.8 U | 2.8 U | 2.8 U | 2.8 U | 2.8 U | 2.8 U |
| SVOCs (µg/L) EPA Method 8270C | | | | | | | | | | | | |
| 1,1'-Biphenyl | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 2,2'-Oxybis(1-chloropropane) | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 2,4,5-Trichlorophenol | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 2,4,6-Trichlorophenol | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 2,4-Dichlorophenol | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 2,4-Dimethylphenol | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 2,4-Dinitrophenol | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U |
| 2,4-Dinitrotoluene | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U |
| 2,6-Dinitrotoluene | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U |
| 2-Chloronaphthalene | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 2-Chlorophenol | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 2-Methylnaphthalene | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 2-Methylphenol | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 2-Nitroaniline | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U |
| 2-Nitrophenol | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 3,3'-Dichlorobenzidine | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 3/4-Methylphenol | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 3-Nitroaniline | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 4,6-Dinitro-2-methylphenol | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U |

TABLE B-2
MAY 2004 VALIDATED ANALYTICAL RESULTS, SITE 1 LANDFILL
FORMER NAS MOFFETT FIELD

| COC | 86-S1-001 W1-1 5/24/04 | 86-S1-002 W1-1 (DUP) 5/24/04 | 86-S1-003 W1-15 5/24/04 | 86-S1-004 W1-19 5/25/04 | 86-S1-006 W1-14 5/25/04 | 86-S1-007 W1-14 (DUP) 5/25/04 | 86-S1-008 W1-12R 5/25/04 | 86-S1-009 W1-22 5/26/04 | 86-S1-010 W1-5 5/26/04 | 86-S1-011 W1-8 5/26/04 | 86-S1-012 W1-24 5/26/04 | 86-S1-013 W1-16 5/26/04 |
|----------------------------|------------------------------|------------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------------|--------------------------------|-------------------------------|------------------------------|------------------------------|-------------------------------|-------------------------------|
| 4-Bromophenyl-phenylether | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U |
| 4-Chloro-3-methylphenol | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 4-Chloroaniline | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 4-Chlorophenyl-phenylether | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 4-Nitroaniline | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 4-Nitrophenol | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U |
| Acenaphthene | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Acenaphthylene | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Acetophenone | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Anthracene | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Atrazine | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U |
| Benzaldehyde | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Benzo(a)anthracene | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Benzo(a)pyrene | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Benzo(b)fluoranthene | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Benzo(g,h,i)perylene | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Benzo(k)fluoranthene | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| bis(2-Chloroethoxy)methane | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| bis(2-Chloroethyl)ether | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| bis(2-Ethylhexyl)phthalate | 19 U | 42 | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U |
| Butylbenzylphthalate | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Caprolactam | 9.4 U | 6.2 J | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Carbazole | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Chrysene | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| di-n-Butylphthalate | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| di-n-Octylphthalate | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Dibenz(a,h)anthracene | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U |
| Dibenzofuran | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U |
| Diethylphthalate | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Dimethylphthalate | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Fluoranthene | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Fluorene | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Hexachlorobenzene | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U |

TABLE B-2
MAY 2004 VALIDATED ANALYTICAL RESULTS, SITE 1 LANDFILL
FORMER NAS MOFFETT FIELD

| COC | 86-S1-001 W1-1 5/24/04 | 86-S1-002 W1-1 (DUP) 5/24/04 | 86-S1-003 W1-15 5/24/04 | 86-S1-004 W1-19 5/25/04 | 86-S1-006 W1-14 5/25/04 | 86-S1-007 W1-14 (DUP) 5/25/04 | 86-S1-008 W1-12R 5/25/04 | 86-S1-009 W1-22 5/26/04 | 86-S1-010 W1-5 5/26/04 | 86-S1-011 W1-8 5/26/04 | 86-S1-012 W1-24 5/26/04 | 86-S1-013 W1-16 5/26/04 |
|----------------------------|------------------------------|------------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------------|--------------------------------|-------------------------------|------------------------------|------------------------------|-------------------------------|-------------------------------|
| Hexachlorocyclopentadiene | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Hexachloroethane | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Indeno(1,2,3-cd)pyrene | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Isophorone | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| n-Nitroso-di-n-propylamine | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| n-Nitrosodiphenylamine | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Nitrobenzene | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Pentachlorophenol | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U |
| Phenanthrene | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U |
| Phenol | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Pyrene | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |

Notes:

^a – Well W1-22 is a collection trench well not representative of groundwater at Site 1.

^b – Duplicate sample was re-run at the request of the project chemist. All re-run values were less than the CCL, but are not reported because all of the appropriate laboratory QC documentation was not completed.

Shading indicates concentration above the calculated concentration limit.

Abbreviations and Acronyms:

µg/L – micrograms per liter

BHC – benzenehexachloride

CCL – calculated concentration limit

COC – constituent of concern

DDD – dichlorodiphenyl dichloroethane

DDE – dichlorodiphenyl trichloroethylene

DDT – dichlorodiphenyl trichloroethane

DUP – duplicate sample

EPA – United States Environmental Protection Agency

J – estimated value

NAS – Naval Air Station

PCB – polychlorinated biphenyl

QC – quality control

SVOC – semivolatile organic compound

U – analyte not detected above project reporting limit

UJ – analyte not detected above the estimated reporting limit

VOC – volatile organic compound

TABLE B-3
NOVEMBER 2004 VALIDATED ANALYTICAL RESULTS, SITE 1 LANDFILL
FORMER NAS MOFFETT FIELD

| COC | 86-S1-056 W1-1R 11/8/04 | 86-S1-057 W1-15 11/8/04 | 86-S1-058 W1-19 11/8/04 | 86-S1-060 W1-14 11/8/04 | 86-S1-061 W1-12R 11/9/04 | 86-S1-062 W1-22^a 11/9/04 | 86-S1-063 W1-5 11/9/04 | 86-S1-064 W1-5 (DUP) 11/9/04 | 86-S1-065 W1-8 11/10/04 | 86-S1-066 W1-8 (DUP) 11/10/04 | 86-S1-067 W1-24 11/10/04 | 86-S1-068 W1-16 11/10/04 |
|--------------------------------------------------------|----------------------------------------------------|----------------------------------------------------|----------------------------------------------------|----------------------------------------------------|-----------------------------------------------------|----------------------------------------------------------------|---------------------------------------------------|---------------------------------------------------------|----------------------------------------------------|----------------------------------------------------------|-----------------------------------------------------|-----------------------------------------------------|
| <i>Dissolved Metals (µg/L) EPA Method 200.8</i> | | | | | | | | | | | | |
| Aluminum | 50 U | 50 U | 50 U | 50 U | 50 U | 50.2 | 50 U | 50 U | 50 U | 50 U | 50 U | 50 U |
| Antimony | 4.22 | 4.89 | 4.82 J | 4.49 | 4.94 | 1.94 U | 2.2 U | 2.81 UJ | 3.4 U | 3.65 UJ | 2.72 U | 1.64 U |
| Arsenic | 5.75 J | 7.96 J | 2.82 J | 7.53 J | 3.31 J | 2.2 J | 1.74 J | 1.79 J | 3.81 J | 3.88 J | 11.5 J | 4.91 J |
| Barium | 111 | 126 | 81.3 J | 147 | 60.5 | 1160 | 481 | 477 J | 149 | 141 J | 250 | 417 |
| Beryllium | 0.005 J | 0.015 J | 0.003 J | 0.007 J | 0.005 J | 0.022 J | 0.005 J | 0.004 J | 0.004 J | 0.008 J | 0.015 J | 0.009 J |
| Cadmium | 0.003 J | 0.006 U | 0.421 J | 0.014 J | 0.041 | 0.003 U | 0.003 U | 0.003 U | 0.003 U | 0.003 U | 0.005 J | 0.006 J |
| Chromium | 0.25 J | 0.51 J | 0.17 J | 0.44 J | 0.26 J | 6.19 J | 0.64 J | 0.62 J | 0.73 J | 0.63 J | 1.65 J | 0.63 J |
| Cobalt | 8.68 J | 4.36 J | 11 J | 6.09 J | 3.28 J | 0.101 J | 0.727 J | 1.15 J | 0.775 J | 1.28 J | 1.98 J | 5.93 J |
| Copper | 0.3 J | 0.13 J | 0.38 J | 0.23 J | 0.24 J | 0.37 J | 0.11 J | 0.15 J | 0.14 J | 0.16 J | 0.17 J | 0.17 J |
| Lead | 0.017 J | 0.018 U | 0.039 J | 0.145 | 0.012 J | 0.213 | 0.009 J | 0.009 U | 0.143 | 0.009 U | 0.021 | 0.009 U |
| Nickel | 19.2 | 7.6 | 12.7 J | 7.6 | 8.35 | 21.3 | 4.04 | 4.08 J | 4.24 | 4.1 J | 10.2 | 11.7 |
| Selenium | 0.7 U | 0.3 U | 0.3 U | 0.3 U | 0.3 U | 0.3 U | 0.3 U | 0.3 U | 0.3 U | 0.3 U | 0.3 U | 0.3 U |
| Silver | 0.092 | 0.01 U | 0.011 J | 0.012 J | 0.005 U | 0.005 U | 0.005 U | 0.005 U | 0.005 U | 0.005 U | 0.005 U | 0.005 U |
| Thallium | 0.037 | 0.001 U | 0.062 J | 0.001 U | 0.05 | 0.001 J | 0.007 J | 0.001 J | 0.001 U | 0.001 U | 0.002 J | 0.001 U |
| Vanadium | 6 U | 6 U | 6 U | 6 U | 6 U | 6 U | 6 U | 6 U | 6 U | 6 U | 6 U | 6 U |
| Zinc | 4.17 J | 22.7 J | 37.4 J | 29.5 J | 68.6 J | 1320 J | 0.79 J | 0.5 J | 4.92 J | 3.2 J | 2.22 J | 0.42 J |
| <i>Dissolved Metals (µg/L) EPA Method 7470A</i> | | | | | | | | | | | | |
| Mercury | 4 UJ | 4 UJ | 4 UJ | 4 UJ | 4 UJ | 4 UJ | 4 UJ | 4 UJ | 4 UJ | 4 UJ | 4 UJ | 4 UJ |
| <i>VOCs (µg/L) EPA Method 8260B</i> | | | | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 2.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| 1,1,1-Trichloroethane | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 2.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| 1,1,2,2-Tetrachloroethane | 1 U | 1 U | 1 U | 1 U | 1 U | 5 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| 1,1,2-Trichloroethane | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 2.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| 1,1-Dichloroethane | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 2.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| 1,1-Dichloroethene | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 2.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| 1,1-Dichloropropene | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 2.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| 1,2,3-Trichlorobenzene | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 2.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| 1,2,3-Trichloropropane | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 2.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| 1,2,4-Trichlorobenzene | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 2.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| 1,2,4-Trimethylbenzene | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 2.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| 1,2-Dibromo-3-chloropropane | 2 U | 2 U | 2 U | 2 U | 2 U | 10 U | 2 U | 2 U | 2 U | 2 U | 2 U | 2 U |
| 1,2-Dichlorobenzene | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 2.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |

TABLE B-3
NOVEMBER 2004 VALIDATED ANALYTICAL RESULTS, SITE 1 LANDFILL
FORMER NAS MOFFETT FIELD

| COC | 86-S1-056 W1-1R 11/8/04 | 86-S1-057 W1-15 11/8/04 | 86-S1-058 W1-19 11/8/04 | 86-S1-060 W1-14 11/8/04 | 86-S1-061 W1-12R 11/9/04 | 86-S1-062 W1-22 ^a 11/9/04 | 86-S1-063 W1-5 11/9/04 | 86-S1-064 W1-5 (DUP) 11/9/04 | 86-S1-065 W1-8 11/10/04 | 86-S1-066 W1-8 (DUP) 11/10/04 | 86-S1-067 W1-24 11/10/04 | 86-S1-068 W1-16 11/10/04 |
|-------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|--------------------------------|--------------------------------------------|------------------------------|------------------------------------|-------------------------------|-------------------------------------|--------------------------------|--------------------------------|
| 1,2-Dichloroethane | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 2.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| 1,2-Dichloropropane | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 2.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| 1,3,5-Trimethylbenzene | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 2.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| 1,3-Dichlorobenzene | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 2.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| 1,3-Dichloropropane | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 2.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| 1,4-Dichlorobenzene | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 2.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| 2,2-Dichloropropane | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 2.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| 2-Butanone | 10 U | 10 U | 10 U | 10 U | 10 U | 50 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| 2-Chlorotoluene | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 2.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| 2-Hexanone | 10 U | 10 U | 10 U | 10 U | 10 U | 50 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| 4-Chlorotoluene | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 2.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| 4-Methyl-2-pentanone | 10 UJ | 10 UJ | 10 UJ | 10 UJ | 10 UJ | 50 UJ | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| Acetone | 10 U | 10 U | 10 U | 10 U | 10 U | 50 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| Benzene | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 2.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| Bromobenzene | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 2.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| Bromochloromethane | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 2.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| Bromodichloromethane | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 2.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| Bromoform | 1 U | 1 U | 1 U | 1 U | 1 U | 5 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| Bromomethane | 1 U | 1 U | 1 U | 1 U | 1 U | 5 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| Carbon disulfide | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 2.5 U | 0.5 UJ | 0.23 J | 0.5 UJ | 0.23 J | 0.5 UJ | 0.5 UJ |
| Carbon tetrachloride | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 2.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| Chlorobenzene | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 2.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| Chloroethane | 1 U | 1 U | 1 U | 1 U | 1 U | 5 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| Chloroform | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 2.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| Chloromethane | 1 U | 1 U | 1 U | 1 U | 1 U | 5 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| cis-1,2-Dichloroethene | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 2.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| cis-1,3-Dichloropropene | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 2.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| Dibromochloromethane | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 2.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| Dibromomethane | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 2.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| Dichlorodifluoromethane | 1 U | 1 U | 1 U | 1 U | 1 U | 5 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| Ethylbenzene | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 2.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| Hexachlorobutadiene | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 2.5 U | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 UJ |
| Isopropylbenzene | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 2.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |

TABLE B-3
NOVEMBER 2004 VALIDATED ANALYTICAL RESULTS, SITE 1 LANDFILL
FORMER NAS MOFFETT FIELD

| COC | 86-S1-056 W1-1R 11/8/04 | 86-S1-057 W1-15 11/8/04 | 86-S1-058 W1-19 11/8/04 | 86-S1-060 W1-14 11/8/04 | 86-S1-061 W1-12R 11/9/04 | 86-S1-062 W1-22^a 11/9/04 | 86-S1-063 W1-5 11/9/04 | 86-S1-064 W1-5 (DUP) 11/9/04 | 86-S1-065 W1-8 11/10/04 | 86-S1-066 W1-8 (DUP) 11/10/04 | 86-S1-067 W1-24 11/10/04 | 86-S1-068 W1-16 11/10/04 |
|-------------------------------------------|----------------------------------------|----------------------------------------|----------------------------------------|----------------------------------------|-----------------------------------------|----------------------------------------------------|---------------------------------------|---------------------------------------------|----------------------------------------|----------------------------------------------|-----------------------------------------|-----------------------------------------|
| Methylene chloride | 2 U | 2 U | 2 U | 2 U | 2 U | 10 U | 2 U | 2 U | 2 U | 2 U | 2 U | 2 U |
| m,p-Xylene | 1 U | 1 U | 1 U | 1 U | 1 U | 5 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| Naphthalene | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 2.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| n-Butylbenzene | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 2.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| n-Propylbenzene | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 2.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| o-Xylene | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 2.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| p-Isopropyltoluene | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 2.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| sec-Butylbenzene | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 2.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| Styrene | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 2.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| tert-Butylbenzene | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 2.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| Tetrachloroethene | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 2.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| Toluene | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 2.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| trans-1,2-Dichloroethene | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 2.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| trans-1,3-Dichloropropene | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 UJ | 0.5 UJ | 2.5 UJ | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| Trichloroethene | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 2.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| Trichlorofluoromethane | 1 U | 1 U | 1 U | 1 U | 1 U | 5 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| Vinyl chloride | 1 U | 1 U | 1 U | 1 U | 1 U | 5 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| PCBs (µg/L) EPA Method 8082 | | | | | | | | | | | | |
| Aroclor-1016 | 0.94 UJ | 0.94 UJ | 0.94 UJ | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U |
| Aroclor-1221 | 0.94 UJ | 0.94 UJ | 0.94 UJ | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U |
| Aroclor-1232 | 0.94 UJ | 0.94 UJ | 0.94 UJ | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U |
| Aroclor-1242 | 0.94 UJ | 0.94 UJ | 0.94 UJ | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U |
| Aroclor-1248 | 0.94 UJ | 0.94 UJ | 0.94 UJ | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U |
| Aroclor-1254 | 0.94 UJ | 0.94 UJ | 0.94 UJ | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U |
| Aroclor-1260 | 0.94 UJ | 0.94 UJ | 0.94 UJ | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U | 0.94 U |
| Pesticides (µg/L) EPA Method 8081A | | | | | | | | | | | | |
| 4,4'-DDD | 0.094 UJ | 0.094 UJ | 0.094 UJ | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U |
| 4,4'-DDE | 0.094 UJ | 0.094 UJ | 0.094 UJ | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U |
| 4,4'-DDT | 0.094 UJ | 0.094 UJ | 0.094 UJ | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U |
| Aldrin | 0.047 UJ | 0.047 UJ | 0.047 UJ | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U |
| alpha-BHC | 0.047 UJ | 0.047 UJ | 0.047 UJ | 0.047 U | 0.047 U | 0.011 J | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U |
| alpha-Chlordane | 0.047 UJ | 0.047 UJ | 0.047 UJ | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U |
| beta-BHC | 0.047 UJ | 0.047 UJ | 0.047 UJ | 0.047 U | 0.047 U | 0.14 | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U |

TABLE B-3
NOVEMBER 2004 VALIDATED ANALYTICAL RESULTS, SITE 1 LANDFILL
FORMER NAS MOFFETT FIELD

| COC | 86-S1-056 W1-1R 11/8/04 | 86-S1-057 W1-15 11/8/04 | 86-S1-058 W1-19 11/8/04 | 86-S1-060 W1-14 11/8/04 | 86-S1-061 W1-12R 11/9/04 | 86-S1-062 W1-22^a 11/9/04 | 86-S1-063 W1-5 11/9/04 | 86-S1-064 W1-5 (DUP) 11/9/04 | 86-S1-065 W1-8 11/10/04 | 86-S1-066 W1-8 (DUP) 11/10/04 | 86-S1-067 W1-24 11/10/04 | 86-S1-068 W1-16 11/10/04 |
|--------------------------------------|----------------------------------------------------|----------------------------------------------------|----------------------------------------------------|----------------------------------------------------|-----------------------------------------------------|----------------------------------------------------------------|---------------------------------------------------|---------------------------------------------------------|----------------------------------------------------|----------------------------------------------------------|-----------------------------------------------------|-----------------------------------------------------|
| delta-BHC | 0.047 UJ | 0.047 UJ | 0.047 UJ | 0.047 U | 0.047 U | 0.029 J | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U |
| Dieldrin | 0.19 UJ | 0.19 UJ | 0.19 UJ | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U | 0.19 U |
| Endosulfan I | 0.047 UJ | 0.047 UJ | 0.047 UJ | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U |
| Endosulfan II | 0.094 UJ | 0.094 UJ | 0.094 UJ | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U |
| Endosulfan sulfate | 0.094 UJ | 0.094 UJ | 0.094 UJ | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U |
| Endrin | 0.094 UJ | 0.094 UJ | 0.094 UJ | 0.094 U | 0.094 U | 0.032 J | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U |
| Endrin aldehyde | 0.094 UJ | 0.094 UJ | 0.094 UJ | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U |
| Endrin ketone | 0.094 UJ | 0.094 UJ | 0.094 UJ | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U | 0.094 U |
| gamma-BHC (Lindane) | 0.047 UJ | 0.047 UJ | 0.047 UJ | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U |
| gamma-Chlordane | 0.047 UJ | 0.047 UJ | 0.047 UJ | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U |
| Heptachlor | 0.047 UJ | 0.047 UJ | 0.047 UJ | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U |
| Heptachlor epoxide | 0.047 UJ | 0.047 UJ | 0.047 UJ | 0.047 U | 0.047 U | 0.034 J | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U | 0.047 U |
| Methoxychlor | 0.47 UJ | 0.47 UJ | 0.47 UJ | 0.47 U | 0.47 U | 0.47 U | 0.47 U | 0.47 U | 0.47 U | 0.47 U | 0.47 U | 0.47 U |
| Toxaphene | 2.8 UJ | 2.8 UJ | 2.8 UJ | 2.8 U | 2.8 U | 2.8 U | 2.8 U | 2.8 U | 2.8 U | 2.8 U | 2.8 U | 2.8 U |
| SVOCs (µg/L) EPA Method 8270C | | | | | | | | | | | | |
| 1,1'-Biphenyl | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 2,2'-Oxybis(1-chloropropane) | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 2,4,5-Trichlorophenol | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 2,4,6-Trichlorophenol | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 2,4-Dichlorophenol | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 2,4-Dimethylphenol | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 2,4-Dinitrophenol | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U |
| 2,4-Dinitrotoluene | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U |
| 2,6-Dinitrotoluene | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U |
| 2-Chloronaphthalene | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 2-Chlorophenol | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 2-Methylnaphthalene | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 2-Methylphenol | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 2-Nitroaniline | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U |
| 2-Nitrophenol | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 3,3'-Dichlorobenzidine | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 3/4-Methylphenol | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 3-Nitroaniline | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |

TABLE B-3
NOVEMBER 2004 VALIDATED ANALYTICAL RESULTS, SITE 1 LANDFILL
FORMER NAS MOFFETT FIELD

| COC | 86-S1-056 W1-1R 11/8/04 | 86-S1-057 W1-15 11/8/04 | 86-S1-058 W1-19 11/8/04 | 86-S1-060 W1-14 11/8/04 | 86-S1-061 W1-12R 11/9/04 | 86-S1-062 W1-22 ^a 11/9/04 | 86-S1-063 W1-5 11/9/04 | 86-S1-064 W1-5 (DUP) 11/9/04 | 86-S1-065 W1-8 11/10/04 | 86-S1-066 W1-8 (DUP) 11/10/04 | 86-S1-067 W1-24 11/10/04 | 86-S1-068 W1-16 11/10/04 |
|----------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|--------------------------------|--------------------------------------------|------------------------------|------------------------------------|-------------------------------|-------------------------------------|--------------------------------|--------------------------------|
| 4,6-Dinitro-2-methylphenol | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U |
| 4-Bromophenyl-phenylether | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U |
| 4-Chloro-3-methylphenol | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 4-Chloroaniline | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 4-Chlorophenyl-phenylether | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 4-Nitroaniline | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 4-Nitrophenol | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U |
| Acenaphthene | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Acenaphthylene | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Acetophenone | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Anthracene | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Atrazine | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U |
| Benzaldehyde | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Benzo(a)anthracene | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Benzo(a)pyrene | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Benzo(b)fluoranthene | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Benzo(g,h,i)perylene | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Benzo(k)fluoranthene | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| bis(2-Chloroethoxy)methane | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| bis(2-Chloroethyl)ether | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| bis(2-Ethylhexyl)phthalate | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U |
| Butylbenzylphthalate | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Caprolactam | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Carbazole | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Chrysene | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Dibenzo(a,h)anthracene | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Dibenzofuran | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Diethylphthalate | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U |
| Dimethylphthalate | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U |
| di-n-Butylphthalate | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| di-n-Octylphthalate | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Fluoranthene | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Fluorene | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |

TABLE B-3
NOVEMBER 2004 VALIDATED ANALYTICAL RESULTS, SITE 1 LANDFILL
FORMER NAS MOFFETT FIELD

| COC | 86-S1-056 W1-1R 11/8/04 | 86-S1-057 W1-15 11/8/04 | 86-S1-058 W1-19 11/8/04 | 86-S1-060 W1-14 11/8/04 | 86-S1-061 W1-12R 11/9/04 | 86-S1-062 W1-22^a 11/9/04 | 86-S1-063 W1-5 11/9/04 | 86-S1-064 W1-5 (DUP) 11/9/04 | 86-S1-065 W1-8 11/10/04 | 86-S1-066 W1-8 (DUP) 11/10/04 | 86-S1-067 W1-24 11/10/04 | 86-S1-068 W1-16 11/10/04 |
|----------------------------|----------------------------------------------------|----------------------------------------------------|----------------------------------------------------|----------------------------------------------------|-----------------------------------------------------|----------------------------------------------------------------|---------------------------------------------------|---------------------------------------------------------|----------------------------------------------------|----------------------------------------------------------|-----------------------------------------------------|-----------------------------------------------------|
| Hexachlorobenzene | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U |
| Hexachlorocyclopentadiene | 9.4 UJ | 9.4 UJ | 9.4 UJ | 9.5 UJ | 9.4 UJ | 9.4 UJ | 9.4 UJ | 9.4 UJ | 9.4 UJ | 9.4 UJ | 9.4 UJ | 9.4 UJ |
| Hexachloroethane | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Indeno(1,2,3-cd)pyrene | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Isophorone | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Nitrobenzene | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| n-Nitroso-di-n-propylamine | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| n-Nitrosodiphenylamine | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Pentachlorophenol | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U |
| Phenanthrene | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U |
| Phenol | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Pyrene | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |

Notes:

Shading indicates concentration above the calculated concentration limit.

^a – Well W1-22 is a collection trench well and not representative of groundwater at Site 1

Abbreviations and Acronyms:

µg/L – micrograms per liter

BHC – benzene hexachloride

COC – constituent of concern

DDD – dichlorodiphenyl dichloroethane

DDE – dichlorodiphenyl trichloroethylene

DDT – dichlorodiphenyl trichloroethane

DUP – duplicate sample

EPA – Environmental Protection Agency

J – estimated value

NAS – Naval Air Station

PCB – polychlorinated biphenyl

SVOC – semivolatile organic compound

U – analyte not detected above project reporting limit

UJ – analyte not detected above the estimated reporting limit

VOC – volatile organic compound

SUPPLEMENTAL SAMPLING

TABLE B-4

**JULY 2004 ANALYTICAL RESULTS FOR DISSOLVED MERCURY AND SEMIVOLATILE ORGANIC COMPOUNDS, SITE 1
FORMER NAS MOFFETT FIELD**

| COC | 86-S1-017 W1-1 7/7/04 | 86-S1-018 W1-15 7/7/04 | 86-S1-019 W1-15 (DUP) 7/7/04 | 86-S1-020 W1-19 7/7/04 | 86-S1-022 W1-14 7/6/04 | 86-S1-023 W1-14 (DUP) 7/6/04 | 86-S1-024 W1-12R 7/6/04 | 86-S1-025 W1-22 ^a 7/6/04 | 86-S1-026 W1-5 7/6/04 | 86-S1-027 W1-8 7/6/04 | 86-S1-028 W1-24 7/6/04 | 86-S1-029 W1-16 7/6/04 |
|-------------------------------------------------|-----------------------------|------------------------------|------------------------------------|------------------------------|------------------------------|------------------------------------|-------------------------------|-------------------------------------------|-----------------------------|-----------------------------|------------------------------|------------------------------|
| <i>Dissolved Metals (µg/L) EPA Method 7470A</i> | | | | | | | | | | | | |
| Mercury | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U |
| <i>SVOCs (µg/L) EPA Method 8270C</i> | | | | | | | | | | | | |
| 1,1'-Biphenyl | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 2,2'-Oxybis(1-chloropropane) | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 2,4,5-Trichlorophenol | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 2,4,6-Trichlorophenol | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 2,4-Dichlorophenol | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 2,4-Dimethylphenol | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 2,4-Dinitrophenol | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U |
| 2,4-Dinitrotoluene | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U |
| 2,6-Dinitrotoluene | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U |
| 2-Chloronaphthalene | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 2-Chlorophenol | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 2-Methylnaphthalene | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 2-Methylphenol | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 2-Nitroaniline | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U |
| 2-Nitrophenol | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 3,3'-Dichlorobenzidine | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 3/4-Methylphenol | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 3-Nitroaniline | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 4,6-Dinitro-2-methylphenol | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U |
| 4-Bromophenyl-phenylether | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U |
| 4-Chloro-3-methylphenol | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 4-Chloroaniline | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 4-Chlorophenyl-phenylether | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 4-Nitroaniline | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 4-Nitrophenol | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U |
| Acenaphthene | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Acenaphthylene | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Acetophenone | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Anthracene | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Atrazine | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U |

TABLE B-4

**JULY 2004 ANALYTICAL RESULTS FOR DISSOLVED MERCURY AND SEMIVOLATILE ORGANIC COMPOUNDS, SITE 1
FORMER NAS MOFFETT FIELD**

| COC | 86-S1-001 W1-1 5/24/04 | 86-S1-002 W1-1 (DUP) 5/24/04 | 86-S1-003 W1-15 5/24/04 | 86-S1-004 W1-19 5/25/04 | 86-S1-006 W1-14 5/25/04 | 86-S1-007 W1-14 (DUP) 5/25/04 | 86-S1-008 W1-12R 5/25/04 | 86-S1-009 W1-22 5/26/04 | 86-S1-010 W1-5 5/26/04 | 86-S1-011 W1-8 5/26/04 | 86-S1-012 W1-24 5/26/04 | 86-S1-013 W1-16 5/26/04 |
|----------------------------|---------------------------------------|---------------------------------------------|----------------------------------------|----------------------------------------|----------------------------------------|----------------------------------------------|-----------------------------------------|----------------------------------------|---------------------------------------|---------------------------------------|----------------------------------------|----------------------------------------|
| Benzaldehyde | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Benzo(a)anthracene | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Benzo(a)pyrene | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Benzo(b)fluoranthene | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Benzo(g,h,i)perylene | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Benzo(k)fluoranthene | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| bis(2-Chloroethoxy)methane | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| bis(2-Chloroethyl)ether | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| bis(2-Ethylhexyl)phthalate | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U |
| Butylbenzylphthalate | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Caprolactam | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Carbazole | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Chrysene | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Dibenzo(a,h)anthracene | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Dibenzofuran | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Diethylphthalate | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U |
| Dimethylphthalate | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U |
| di-n-Butylphthalate | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| di-n-Octylphthalate | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Fluoranthene | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Fluorene | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Hexachlorobenzene | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U |
| Hexachlorocyclopentadiene | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Hexachloroethane | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Indeno(1,2,3-cd)pyrene | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Isophorone | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Nitrobenzene | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| n-Nitroso-di-n-propylamine | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| n-Nitrosodiphenylamine | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Pentachlorophenol | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U |
| Phenanthrene | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U |
| Phenol | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Pyrene | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.5 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |

TABLE B-4

**JULY 2004 ANALYTICAL RESULTS FOR DISSOLVED MERCURY AND SEMIVOLATILE ORGANIC COMPOUNDS, SITE 1
FORMER NAS MOFFETT FIELD**

Notes:

^a – Well W1-22 is a collection trench well not representative of groundwater at Site 1

Abbreviations and Acronyms:

µg/L – micrograms per liter

DUP – duplicate sample

NAS – Naval Air Station

SVOC – semivolatile organic compound

U – analyte not detected above project reporting limit

TABLE B-5

**AUGUST 2004 ANALYTICAL RESULTS FOR DISSOLVED MERCURY AND SEMIVOLATILE ORGANIC COMPOUNDS, SITE 1
FORMER NAS MOFFETT FIELD**

| COC | 86-S1-030 W1-1R 8/19/04 | 86-S1-031 W1-15 8/18/04 | 86-S1-032 W1-19 8/18/04 | 86-S1-034 W1-14 8/18/04 | 86-S1-035 W1-12R 8/18/04 | 86-S1-036 W1-12R (DUP) 8/18/04 | 86-S1-037 W1-22 ^a 8/19/04 | 86-S1-038 W1-5 8/19/04 | 86-S1-039 W1-5 (DUP) 8/19/04 | 86-S1-040 W1-8 8/19/04 | 86-S1-041 W1-24 8/19/04 | 86-S1-042 W1-16 8/19/04 |
|-------------------------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|--------------------------------|--------------------------------------|--------------------------------------------|------------------------------|------------------------------------|------------------------------|-------------------------------|-------------------------------|
| <i>Dissolved Metals (µg/L) EPA Method 7470A</i> | | | | | | | | | | | | |
| Mercury | 8 U | 8 U | 8 U | 8 U | 8 U | 8 U | 8 U | 8 U | 8 U | 8 U | 8 U | 8 U |
| <i>SVOCs (µg/L) EPA Method 8270C</i> | | | | | | | | | | | | |
| 1,1'-Biphenyl | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 2,2'-Oxybis(1-chloropropane) | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 2,4,5-Trichlorophenol | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 2,4,6-Trichlorophenol | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 2,4-Dichlorophenol | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 2,4-Dimethylphenol | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 2,4-Dinitrophenol | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U |
| 2,4-Dinitrotoluene | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U |
| 2,6-Dinitrotoluene | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U |
| 2-Chloronaphthalene | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 2-Chlorophenol | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 2-Methylnaphthalene | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 2-Methylphenol | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 2-Nitroaniline | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U |
| 2-Nitrophenol | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 3,3'-Dichlorobenzidine | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 3/4-Methylphenol | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 3-Nitroaniline | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 4,6-Dinitro-2-methylphenol | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U |
| 4-Bromophenyl-phenylether | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U |
| 4-Chloro-3-methylphenol | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 4-Chloroaniline | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 4-Chlorophenyl-phenylether | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 4-Nitroaniline | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 4-Nitrophenol | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U |
| Acenaphthene | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Acenaphthylene | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Acetophenone | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Anthracene | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Atrazine | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U |

TABLE B-5

**AUGUST 2004 ANALYTICAL RESULTS FOR DISSOLVED MERCURY AND SEMIVOLATILE ORGANIC COMPOUNDS, SITE 1
FORMER NAS MOFFETT FIELD**

| COC | 86-S1-030 W1-1 8/19/04 | 86-S1-031 W1-15 8/18/04 | 86-S1-032 W1-19 8/18/04 | 86-S1-034 W1-14 8/18/04 | 86-S1-035 W1-12 8/18/04 | 86-S1-036 W1-12 (DUP) 8/18/04 | 86-S1-037 W1-22a 8/19/04 | 86-S1-038 W1-5 8/19/04 | 86-S1-039 W1-5 (DUP) 8/19/04 | 86-S1-040 W1-8 8/19/04 | 86-S1-041 W1-24 8/19/04 | 86-S1-042 W1-16 8/19/04 |
|----------------------------|------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------------|--------------------------------|------------------------------|------------------------------------|------------------------------|-------------------------------|-------------------------------|
| Benzaldehyde | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Benzo(a)anthracene | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Benzo(a)pyrene | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Benzo(b)fluoranthene | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Benzo(g,h,i)perylene | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Benzo(k)fluoranthene | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| bis(2-Chloroethoxy)methane | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| bis(2-Chloroethyl)ether | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| bis(2-Ethylhexyl)phthalate | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 750 U ^b | 19 U | 19 U | 19 U |
| Butylbenzylphthalate | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Caprolactam | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Carbazole | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Chrysene | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Dibenzo(a,h)anthracene | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Dibenzofuran | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Diethylphthalate | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U |
| Dimethylphthalate | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U |
| di-n-Butylphthalate | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| di-n-Octylphthalate | 9.4 UJ | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 UJ | 9.4 UJ | 9.4 UJ | 9.4 UJ | 9.4 UJ |
| Fluoranthene | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Fluorene | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Hexachlorobenzene | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U |
| Hexachlorocyclopentadiene | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Hexachloroethane | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Indeno(1,2,3-cd)pyrene | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Isophorone | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Nitrobenzene | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| n-Nitroso-di-n-propylamine | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| n-Nitrosodiphenylamine | 9.4 UJ | 9.4 UJ | 9.4 UJ | 9.4 UJ | 9.4 UJ | 9.4 UJ | 9.4 UJ | 9.4 UJ | 9.4 UJ | 9.4 UJ | 9.4 UJ | 9.4 UJ |
| Pentachlorophenol | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U |
| Phenanthrene | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U |
| Phenol | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Pyrene | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |

TABLE B-5

**AUGUST 2004 ANALYTICAL RESULTS FOR DISSOLVED MERCURY AND SEMIVOLATILE ORGANIC COMPOUNDS, SITE 1
FORMER NAS MOFFETT FIELD**

Notes:

^a – Well W1-22 is a collection trench well not representative of groundwater at Site 1

^b – The result for bis(2-Ethylhexyl)phthalate in well W1-5 (duplicate sample 86-S1-039) is a lab contaminant. The sample was reanalyzed out of holding time and found to be non-detect. In addition, the regular sample for well W1-5 (86-S1-038) was non-detect for bis(2-Ethylhexyl)phthalate. Well W1-5 is upgradient of the Site 1 Landfill.

Abbreviations and Acronyms:

µg/L – micrograms per liter

COC – constituent of concern

DUP – duplicate sample

NAS – Naval Air Station

SVOC – semivolatile organic compound

U – analyte not detected above project reporting limit

UJ – analyte not detected above the estimated reporting limit

TABLE B-6

**SEPTEMBER 2004 ANALYTICAL RESULTS FOR DISSOLVED MERCURY AND SEMIVOLATILE ORGANIC COMPOUNDS, SITE 1
FORMER NAS MOFFETT FIELD**

| COC | 86-S1-043 W1-1R 9/27/04 | 86-S1-044 W1-15 9/27/04 | 86-S1-045 W1-19 9/27/04 | 86-S1-047 W1-14 9/27/04 | 86-S1-048 W1-12R 9/28/04 | 86-S1-049 W1-12R (DUP) 9/28/04 | 86-S1-050 W1-22 ^a 9/28/04 | 86-S1-051 W1-5 9/28/04 | 86-S1-052 W1-8 9/28/04 | 86-S1-053 W1-8 (DUP) 9/28/04 | 86-S1-054 W1-24 9/28/04 | 86-S1-055 W1-16 9/28/04 |
|-------------------------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|--------------------------------|--------------------------------------|--------------------------------------------|------------------------------|------------------------------|------------------------------------|-------------------------------|-------------------------------|
| <i>Dissolved Metals (µg/L) EPA Method 7470A</i> | | | | | | | | | | | | |
| Mercury | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U |
| <i>SVOCs (µg/L) EPA Method 8270C</i> | | | | | | | | | | | | |
| 1,1'-Biphenyl | 10 U | 9.6 U | 10 U | 10 U | 9.5 U | 9.4 U | 9.5 U | 9.5 U | 9.4 U | 9.6 U | 9.4 U | 9.9 U |
| 2,2'-Oxybis(1-chloropropane) | 10 U | 9.6 U | 10 U | 10 U | 9.5 U | 9.4 U | 9.5 U | 9.5 U | 9.4 U | 9.6 U | 9.4 U | 9.9 U |
| 2,4,5-Trichlorophenol | 10 U | 9.6 U | 10 U | 10 U | 9.5 U | 9.4 U | 9.5 U | 9.5 U | 9.4 U | 9.6 U | 9.4 U | 9.9 U |
| 2,4,6-Trichlorophenol | 10 U | 9.6 U | 10 U | 10 U | 9.5 U | 9.4 U | 9.5 U | 9.5 U | 9.4 U | 9.6 U | 9.4 U | 9.9 U |
| 2,4-Dichlorophenol | 10 U | 9.6 U | 10 U | 10 U | 9.5 U | 9.4 U | 9.5 U | 9.5 U | 9.4 U | 9.6 U | 9.4 U | 9.9 U |
| 2,4-Dimethylphenol | 10 U | 9.6 U | 10 U | 10 U | 9.5 U | 9.4 U | 9.5 U | 9.5 U | 9.4 U | 9.6 U | 9.4 U | 9.9 U |
| 2,4-Dinitrophenol | 20 U | 19 U | 20 U | 20 U | 19 U | 19 UJ | 19 U | 19 U | 19 U | 19 U | 19 U | 20 U |
| 2,4-Dinitrotoluene | 20 U | 19 U | 20 U | 20 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 20 U |
| 2,6-Dinitrotoluene | 20 U | 19 U | 20 U | 20 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 20 U |
| 2-Chloronaphthalene | 10 U | 9.6 U | 10 U | 10 U | 9.5 U | 9.4 U | 9.5 U | 9.5 U | 9.4 U | 9.6 U | 9.4 U | 9.9 U |
| 2-Chlorophenol | 10 U | 9.6 U | 10 U | 10 U | 9.5 U | 9.4 U | 9.5 U | 9.5 U | 9.4 U | 9.6 U | 9.4 U | 9.9 U |
| 2-Methylnaphthalene | 10 U | 9.6 U | 10 U | 10 U | 9.5 U | 9.4 U | 9.5 U | 9.5 U | 9.4 U | 9.6 U | 9.4 U | 9.9 U |
| 2-Methylphenol | 10 U | 9.6 U | 10 U | 10 U | 9.5 U | 9.4 U | 9.5 U | 9.5 U | 9.4 U | 9.6 U | 9.4 U | 9.9 U |
| 2-Nitroaniline | 20 U | 19 U | 20 U | 20 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 20 U |
| 2-Nitrophenol | 10 U | 9.6 U | 10 U | 10 U | 9.5 U | 9.4 U | 9.5 U | 9.5 U | 9.4 U | 9.6 U | 9.4 U | 9.9 U |
| 3,3'-Dichlorobenzidine | 10 U | 9.6 U | 10 U | 10 U | 9.5 U | 9.4 U | 9.5 U | 9.5 U | 9.4 U | 9.6 U | 9.4 U | 9.9 U |
| 3/4-Methylphenol | 10 U | 9.6 U | 10 U | 10 U | 9.5 U | 9.4 U | 9.5 U | 9.5 U | 9.4 U | 9.6 U | 9.4 U | 9.9 U |
| 3-Nitroaniline | 10 U | 9.6 U | 10 U | 10 U | 9.5 U | 9.4 U | 9.5 U | 9.5 U | 9.4 U | 9.6 U | 9.4 U | 9.9 U |
| 4,6-Dinitro-2-methylphenol | 20 U | 19 U | 20 U | 20 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 20 U |
| 4-Bromophenyl-phenylether | 20 U | 19 U | 20 U | 20 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 20 U |
| 4-Chloro-3-methylphenol | 10 U | 9.6 U | 10 U | 10 U | 9.5 U | 9.4 U | 9.5 U | 9.5 U | 9.4 U | 9.6 U | 9.4 U | 9.9 U |
| 4-Chloroaniline | 10 U | 9.6 U | 10 U | 10 U | 9.5 U | 9.4 U | 9.5 U | 9.5 U | 9.4 U | 9.6 U | 9.4 U | 9.9 U |
| 4-Chlorophenyl-phenylether | 10 U | 9.6 U | 10 U | 10 U | 9.5 U | 9.4 U | 9.5 U | 9.5 U | 9.4 U | 9.6 U | 9.4 U | 9.9 U |
| 4-Nitroaniline | 10 U | 9.6 U | 10 U | 10 U | 9.5 U | 9.4 U | 9.5 U | 9.5 U | 9.4 U | 9.6 U | 9.4 U | 9.9 U |
| 4-Nitrophenol | 20 UJ | 19 UJ | 20 UJ | 20 UJ | 19 UJ | 19 U | 19 UJ | 19 UJ | 19 UJ | 19 UJ | 19 UJ | 20 UJ |
| Acenaphthene | 10 U | 9.6 U | 10 U | 10 U | 9.5 U | 9.4 U | 9.5 U | 9.5 U | 9.4 U | 9.6 U | 9.4 U | 9.9 U |
| Acenaphthylene | 10 U | 9.6 U | 10 U | 10 U | 9.5 U | 9.4 U | 9.5 U | 9.5 U | 9.4 U | 9.6 U | 9.4 U | 9.9 U |
| Acetophenone | 10 U | 9.6 U | 10 U | 10 U | 9.5 U | 9.4 U | 9.5 U | 9.5 U | 9.4 U | 9.6 U | 9.4 U | 9.9 U |
| Anthracene | 10 U | 9.6 U | 10 U | 10 U | 9.5 U | 9.4 U | 9.5 U | 9.5 U | 9.4 U | 9.6 U | 9.4 U | 9.9 U |
| Atrazine | 20 U | 19 U | 20 U | 20 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 20 U |

TABLE B-6

**SEPTEMBER 2004 ANALYTICAL RESULTS FOR DISSOLVED MERCURY AND SEMIVOLATILE ORGANIC COMPOUNDS, SITE 1
FORMER NAS MOFFETT FIELD**

| COC | 86-S1-043 W1-1R 9/27/04 | 86-S1-044 W1-15 9/27/04 | 86-S1-045 W1-19 9/27/04 | 86-S1-047 W1-14 9/27/04 | 86-S1-048 W1-12R 9/28/04 | 86-S1-049 W1-12R (DUP) 9/28/04 | 86-S1-050 W1-22 ^a 9/28/04 | 86-S1-051 W1-5 9/28/04 | 86-S1-052 W1-8 9/28/04 | 86-S1-053 W1-8 (DUP) 9/28/04 | 86-S1-054 W1-24 9/28/04 | 86-S1-055 W1-16 9/28/04 |
|----------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|--------------------------------|--------------------------------------|--------------------------------------------|------------------------------|------------------------------|------------------------------------|-------------------------------|-------------------------------|
| Benzaldehyde | 10 U | 9.6 U | 10 U | 10 U | 9.5 U | 9.4 U | 9.5 U | 9.5 U | 9.4 U | 9.6 U | 9.4 U | 9.9 U |
| Benzo(a)anthracene | 10 U | 9.6 U | 10 U | 10 U | 9.5 U | 9.4 U | 9.5 U | 9.5 U | 9.4 U | 9.6 U | 9.4 U | 9.9 U |
| Benzo(a)pyrene | 10 U | 9.6 U | 10 U | 10 U | 9.5 U | 9.4 U | 9.5 U | 9.5 U | 9.4 U | 9.6 U | 9.4 U | 9.9 U |
| Benzo(b)fluoranthene | 10 U | 9.6 U | 10 U | 10 U | 9.5 U | 9.4 U | 9.5 U | 9.5 U | 9.4 U | 9.6 U | 9.4 U | 9.9 U |
| Benzo(g,h,i)perylene | 10 U | 9.6 U | 10 U | 10 U | 9.5 U | 9.4 U | 9.5 U | 9.5 U | 9.4 U | 9.6 U | 9.4 U | 9.9 U |
| Benzo(k)fluoranthene | 10 U | 9.6 U | 10 U | 10 U | 9.5 U | 9.4 U | 9.5 U | 9.5 U | 9.4 U | 9.6 U | 9.4 U | 9.9 U |
| bis(2-Chloroethoxy)methane | 10 U | 9.6 U | 10 U | 10 U | 9.5 U | 9.4 U | 9.5 U | 9.5 U | 9.4 U | 9.6 U | 9.4 U | 9.9 U |
| bis(2-Chloroethyl)ether | 10 U | 9.6 U | 10 U | 10 U | 9.5 U | 9.4 U | 9.5 U | 9.5 U | 9.4 U | 9.6 U | 9.4 U | 9.9 U |
| bis(2-Ethylhexyl)phthalate | 20 U | 19 U | 20 U | 20 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 20 U |
| Butylbenzylphthalate | 10 U | 9.6 U | 10 U | 10 U | 9.5 U | 9.4 U | 9.5 U | 9.5 U | 9.4 U | 9.6 U | 9.4 U | 9.9 U |
| Caprolactam | 10 U | 9.6 U | 10 U | 10 U | 9.5 U | 9.4 U | 9.5 U | 9.5 U | 9.4 U | 9.6 U | 9.4 U | 9.9 U |
| Carbazole | 10 U | 9.6 U | 10 U | 10 U | 9.5 U | 9.4 U | 9.5 U | 9.5 U | 9.4 U | 9.6 U | 9.4 U | 9.9 U |
| Chrysene | 10 U | 9.6 U | 10 U | 10 U | 9.5 U | 9.4 U | 9.5 U | 9.5 U | 9.4 U | 9.6 U | 9.4 U | 9.9 U |
| Dibenzo(a,h)anthracene | 10 U | 9.6 U | 10 U | 10 U | 9.5 U | 9.4 U | 9.5 U | 9.5 U | 9.4 U | 9.6 U | 9.4 U | 9.9 U |
| Dibenzofuran | 10 U | 9.6 U | 10 U | 10 U | 9.5 U | 9.4 U | 9.5 U | 9.5 U | 9.4 U | 9.6 U | 9.4 U | 9.9 U |
| Diethylphthalate | 20 U | 19 U | 20 U | 20 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 20 U |
| Dimethylphthalate | 20 U | 19 U | 20 U | 20 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 20 U |
| di-n-Butylphthalate | 10 U | 9.6 U | 10 U | 10 U | 9.5 U | 9.4 U | 9.5 U | 9.5 U | 9.4 U | 9.6 U | 9.4 U | 9.9 U |
| di-n-Octylphthalate | 10 U | 9.6 U | 10 U | 10 U | 9.5 U | 9.4 U | 9.5 U | 9.5 U | 9.4 U | 9.6 U | 9.4 U | 9.9 U |
| Fluoranthene | 10 U | 9.6 U | 10 U | 10 U | 9.5 U | 9.4 U | 9.5 U | 9.5 U | 9.4 U | 9.6 U | 9.4 U | 9.9 U |
| Fluorene | 10 U | 9.6 U | 10 U | 10 U | 9.5 U | 9.4 U | 9.5 U | 9.5 U | 9.4 U | 9.6 U | 9.4 U | 9.9 U |
| Hexachlorobenzene | 20 U | 19 U | 20 U | 20 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 20 U |
| Hexachlorocyclopentadiene | 10 U | 9.6 U | 10 U | 10 U | 9.5 U | 9.4 U | 9.5 U | 9.5 U | 9.4 U | 9.6 U | 9.4 U | 9.9 U |
| Hexachloroethane | 10 U | 9.6 U | 10 U | 10 U | 9.5 U | 9.4 U | 9.5 U | 9.5 U | 9.4 U | 9.6 U | 9.4 U | 9.9 U |
| Indeno(1,2,3-cd)pyrene | 10 U | 9.6 U | 10 U | 10 U | 9.5 U | 9.4 U | 9.5 U | 9.5 U | 9.4 U | 9.6 U | 9.4 U | 9.9 U |
| Isophorone | 10 U | 9.6 U | 10 U | 10 U | 9.5 U | 9.4 U | 9.5 U | 9.5 U | 9.4 U | 9.6 U | 9.4 U | 9.9 U |
| Nitrobenzene | 10 U | 9.6 U | 10 U | 10 U | 9.5 U | 9.4 U | 9.5 U | 9.5 U | 9.4 U | 9.6 U | 9.4 U | 9.9 U |
| n-Nitroso-di-n-propylamine | 10 U | 9.6 U | 10 U | 10 U | 9.5 U | 9.4 U | 9.5 U | 9.5 U | 9.4 U | 9.6 U | 9.4 U | 9.9 U |
| n-Nitrosodiphenylamine | 10 UJ | 9.6 UJ | 10 UJ | 10 UJ | 9.5 UJ | 9.4 UJ | 9.5 UJ | 9.5 UJ | 9.4 UJ | 9.6 UJ | 9.4 UJ | 9.9 UJ |
| Pentachlorophenol | 20 U | 19 U | 20 U | 20 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 20 U |
| Phenanthrene | 20 U | 19 U | 20 U | 20 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 20 U |
| Phenol | 10 UJ | 9.6 UJ | 10 UJ | 10 UJ | 9.5 UJ | 9.4 U | 9.5 UJ | 9.5 UJ | 9.4 UJ | 9.6 UJ | 9.4 UJ | 9.9 UJ |
| Pyrene | 10 U | 9.6 U | 10 U | 10 U | 9.5 U | 9.4 U | 9.5 U | 9.5 U | 9.4 U | 9.6 U | 9.4 U | 9.9 U |

TABLE B-6

**SEPTEMBER 2004 ANALYTICAL RESULTS FOR DISSOLVED MERCURY AND SEMIVOLATILE ORGANIC COMPOUNDS, SITE 1
FORMER NAS MOFFETT FIELD**

Notes:

^a – Well W1-22 is a collection trench well not representative of groundwater at Site 1

Abbreviations and Acronyms:

µg/L – micrograms per liter

COC – constituent of concern

DUP – duplicate sample

NAS – Naval Air Station

SVOC – semivolatile organic compound

U – analyte not detected above project reporting limit

UJ – analyte not detected above the estimated reporting limit

TABLE B-7

**DECEMBER 2004 ANALYTICAL RESULTS FOR DISSOLVED MERCURY AND SEMIVOLATILE ORGANIC COMPOUNDS, SITE 1
FORMER NAS MOFFETT FIELD**

| COC | 86-S1-071 W1-1R 12/13/04 | 86-S1-072 W1-15 12/13/04 | 86-S1-073 W1-19 12/13/04 | 86-S1-075 W1-14 12/13/04 | 86-S1-076 W1-12R 12/13/04 | 86-S1-077 W1-12R (DUP) 12/13/04 | 86-S1-078 W1-22 ^a 12/14/04 | 86-S1-079 W1-5 12/14/04 | 86-S1-080 W1-5 (DUP) 12/14/04 | 86-S1-081 W1-8 12/14/04 | 86-S1-082 W1-24 12/14/04 | 86-S1-083 W1-16 12/14/04 |
|-------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|---------------------------------|---------------------------------------|---------------------------------------------|-------------------------------|-------------------------------------|-------------------------------|--------------------------------|--------------------------------|
| <i>Dissolved Metals (µg/L) EPA Method 7470A</i> | | | | | | | | | | | | |
| Mercury | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U | 4 U |
| <i>SVOCs (µg/L) EPA Method 8270C</i> | | | | | | | | | | | | |
| 1,1'-Biphenyl | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 2,2'-Oxybis(1-chloropropane) | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 2,4,5-Trichlorophenol | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 2,4,6-Trichlorophenol | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 2,4-Dichlorophenol | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 2,4-Dimethylphenol | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 2,4-Dinitrophenol | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U |
| 2,4-Dinitrotoluene | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U |
| 2,6-Dinitrotoluene | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U |
| 2-Chloronaphthalene | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 2-Chlorophenol | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 2-Methylnaphthalene | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 2-Methylphenol | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 2-Nitroaniline | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U |
| 2-Nitrophenol | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 3,3'-Dichlorobenzidine | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 3/4-Methylphenol | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 3-Nitroaniline | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 4,6-Dinitro-2-methylphenol | 19 UJ | 19 UJ | 19 UJ | 19 UJ | 19 UJ | 19 UJ | 19 UJ | 19 UJ | 19 UJ | 19 UJ | 19 UJ | 19 UJ |
| 4-Bromophenyl-phenylether | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U |
| 4-Chloro-3-methylphenol | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 4-Chloroaniline | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 4-Chlorophenyl-phenylether | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 4-Nitroaniline | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| 4-Nitrophenol | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U |
| Acenaphthene | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Acenaphthylene | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Acetophenone | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Anthracene | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Atrazine | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U |

TABLE B-7

**DECEMBER 2004 ANALYTICAL RESULTS FOR DISSOLVED MERCURY AND SEMIVOLATILE ORGANIC COMPOUNDS, SITE 1
FORMER NAS MOFFETT FIELD**

| COC | 86-S1-071 W1-1R 12/13/04 | 86-S1-072 W1-15 12/13/04 | 86-S1-073 W1-19 12/13/04 | 86-S1-075 W1-14 12/13/04 | 86-S1-076 W1-12R 12/13/04 | 86-S1-077 W1-12R (DUP) 12/13/04 | 86-S1-078 W1-22 ^a 12/14/04 | 86-S1-079 W1-5 12/14/04 | 86-S1-080 W1-5 (DUP) 12/14/04 | 86-S1-081 W1-8 12/14/04 | 86-S1-082 W1-24 12/14/04 | 86-S1-083 W1-16 12/14/04 |
|----------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|---------------------------------|---------------------------------------|---------------------------------------------|-------------------------------|-------------------------------------|-------------------------------|--------------------------------|--------------------------------|
| Benzaldehyde | 9.4 UJ | 9.4 UJ | 9.4 UJ | 9.4 UJ | 9.4 UJ | 9.4 UJ | 9.4 UJ | 9.4 UJ | 9.4 UJ | 9.4 UJ | 9.4 UJ | 9.4 UJ |
| Benzo(a)anthracene | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Benzo(a)pyrene | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Benzo(b)fluoranthene | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Benzo(g,h,i)perylene | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Benzo(k)fluoranthene | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| bis(2-Chloroethoxy)methane | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| bis(2-Chloroethyl)ether | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| bis(2-Ethylhexyl)phthalate | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U |
| Butylbenzylphthalate | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Caprolactam | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Carbazole | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Chrysene | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Dibenzo(a,h)anthracene | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Dibenzofuran | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Diethylphthalate | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U |
| Dimethylphthalate | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U |
| di-n-Butylphthalate | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| di-n-Octylphthalate | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Fluoranthene | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Fluorene | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Hexachlorobenzene | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U |
| Hexachlorocyclopentadiene | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Hexachloroethane | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Indeno(1,2,3-cd)pyrene | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Isophorone | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Nitrobenzene | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| n-Nitroso-di-n-propylamine | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| n-Nitrosodiphenylamine | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Pentachlorophenol | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U |
| Phenanthrene | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U | 19 U |
| Phenol | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |
| Pyrene | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U | 9.4 U |

TABLE B-7

**DECEMBER 2004 ANALYTICAL RESULTS FOR DISSOLVED MERCURY AND SEMIVOLATILE ORGANIC COMPOUNDS, SITE 1
FORMER NAS MOFFETT FIELD**

Notes:

^a – Well W1-22 is a collection trench well not representative of groundwater at Site 1

Abbreviations and Acronyms:

µg/L – micrograms per liter

COC – constituent of concern

DUP – duplicate sample

EPA – Environmental Protection Agency

NAS – Naval Air Station

SVOC – semivolatile organic compound

U – analyte not detected above project reporting limit

UJ – analyte not detected above the estimated reporting limit

STATISTICAL EVALUATION

TABLE B-8

**SUMMARY - DISSOLVED METALS
FORMER NAS MOFFETT FIELD
MARCH 2004 MONITORING SUMMARY - DISSOLVED METALS**

| Date | Sample Type | Well | Gradient | Analyte | Conc. (µg/L) | Qualifier | CCL (µg/L) | Less Than Historical Background | Maximum Historical Background | Track for 2 Out of 3 Exceed. | Comment |
|----------|-------------|--------|----------|----------|--------------|-----------|------------|---------------------------------|-------------------------------|------------------------------|-----------------------------------------------------------------------------------------------------|
| 03/31/04 | REG | W1-16 | Downgrd. | Aluminum | 3800 J | | 870 | No | N/A | Yes | Exceeded CCL Location is downgradient well Monitor for exceedance in next two sampling rounds |
| 03/30/04 | REG | W1-5 | Upgrad. | Barium | 485 | | 40 | N/A | N/A | No | Location is a background well |
| 03/30/04 | REG | W1-8 | Upgrad. | Barium | 121 J | | 40 | N/A | N/A | No | Location is a background well |
| 03/30/04 | FD | W1-8 | Upgrad. | Barium | 164 J | | 40 | N/A | N/A | No | Location is a background well |
| 03/29/04 | REG | W1-12R | Upgrad. | Barium | 75.8 J | | 40 | N/A | N/A | No | Location is a background well |
| 03/30/04 | REG | W1-14 | Downgrd. | Barium | 145 J | | 40 | Yes | W1-5 693 µg/L 7/16/03 | No | Less than historical background |
| 03/29/04 | REG | W1-15 | Downgrd. | Barium | 157 J | | 40 | Yes | W1-5 693 µg/L 7/16/03 | No | Less than historical background |
| 03/31/04 | REG | W1-16 | Downgrd. | Barium | 384 | | 40 | Yes | W1-5 693 µg/L 7/16/03 | No | Less than historical background |
| 03/30/04 | REG | W1-19 | Downgrd. | Barium | 81.8 J | | 40 | Yes | W1-5 693 µg/L 7/16/03 | No | Less than historical background |
| 03/30/04 | FD | W1-19 | Downgrd. | Barium | 83.4 J | | 40 | Yes | W1-5 693 µg/L 7/16/03 | No | Less than historical background |
| 03/29/04 | REG | W1-1R | Downgrd. | Barium | 66.6 J | | 40 | Yes | W1-5 693 µg/L 7/16/03 | No | Less than historical background |
| 03/31/04 | REG | W1-24 | Downgrd. | Barium | 246 | | 40 | Yes | W1-5 693 µg/L 7/16/03 | No | Less than historical background |
| 03/30/04 | FD | W1-8 | Upgrad. | Chromium | 107 J | | 71.5 | N/A | N/A | No | Location is a background well Sample is field duplicate; regular sample was non-detect (400 U) |

TABLE B-8

**SUMMARY - DISSOLVED METALS
FORMER NAS MOFFETT FIELD
MAY 2004 MONITORING SUMMARY - DISSOLVED METALS**

| Date | Sample Type | Well | Gradient | Analyte | Conc. (µg/L) | Qualifier | CCL (µg/L) | Less Than Historical Background | Maximum Historical Background | Track for 2 Out of 3 Exceed. | Comment |
|----------|-------------|--------|----------|----------|--------------|-----------|------------|---------------------------------|-------------------------------|------------------------------|------------------------------------------------------------------|
| 05/26/04 | REG | W1-16 | Downgrd. | Aluminum | 50 U | | 870 | N/A | N/A | Yes | No exceedance in this round Continue watch for one more round |
| 05/26/04 | REG | W1-5 | Upgrad. | Barium | 524 | | 40 | N/A | N/A | No | Location is a background well |
| 05/26/04 | REG | W1-8 | Upgrad. | Barium | 130 | | 40 | N/A | N/A | No | Location is a background well |
| 05/25/04 | REG | W1-12R | Upgrad. | Barium | 78.2 | | 40 | N/A | N/A | No | Location is a background well |
| 05/25/04 | REG | W1-14 | Downgrd. | Barium | 152 | | 40 | Yes | W1-5 693 µg/L 7/16/03 | No | Less than historical background |
| 05/25/04 | FD | W1-14 | Downgrd. | Barium | 155 J | | 40 | Yes | W1-5 693 µg/L 7/16/03 | No | Less than historical background |
| 05/24/04 | REG | W1-15 | Downgrd. | Barium | 181 | | 40 | Yes | W1-5 693 µg/L 7/16/03 | No | Less than historical background |
| 05/26/04 | REG | W1-16 | Downgrd. | Barium | 229 J | | 40 | Yes | W1-5 693 µg/L 7/16/03 | No | Less than historical background |
| 05/25/04 | REG | W1-19 | Downgrd. | Barium | 86.6 | | 40 | Yes | W1-5 693 µg/L 7/16/03 | No | Less than historical background |
| 05/24/04 | REG | W1-1R | Downgrd. | Barium | 71.5 | | 40 | Yes | W1-5 693 µg/L 7/16/03 | No | Less than historical background |
| 05/24/04 | FD | W1-1R | Downgrd. | Barium | 72 J | | 40 | Yes | W1-5 693 µg/L 7/16/03 | No | Less than historical background |
| 05/26/04 | REG | W1-24 | Downgrd. | Barium | 214 | | 40 | Yes | W1-5 693 µg/L 7/16/03 | No | Less than historical background |
| 05/26/04 | REG | W1-16 | Downgrd. | Silver | 0.239 J | | 0.22 | Yes | W1-12 21.7 µg/L 7/12/99 | No | Less than historical background |

TABLE B-8

**SUMMARY - DISSOLVED METALS
FORMER NAS MOFFETT FIELD
NOVEMBER 2004 MONITORING SUMMARY - DISSOLVED METALS**

| Date | Sample Type | Well | Gradient | Analyte | Conc. (µg/L) | Qualifier | CCL (µg/L) | Less Than Historical Background | Maximum Historical Background | Track for 2 Out of 3 Exceed. | Comment |
|----------|-------------|--------|----------|----------|--------------|-----------|------------|---------------------------------|-------------------------------|------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| 11/10/04 | REG | W1-16 | Downgrd. | Aluminum | 50 U | | 870 | N/A | N/A | No | No exceedance in this round Second consecutive non-detect since exceedance Consider previous exceedance as false positive |
| 11/09/04 | REG | W1-5 | Upgrad. | Barium | 481 | | 40 | N/A | N/A | No | Exceeded CCL Location is a background well |
| 11/10/04 | REG | W1-8 | Upgrad. | Barium | 141 J | | 40 | N/A | N/A | No | Exceeded CCL Location is a background well |
| 11/09/04 | REG | W1-12R | Upgrad. | Barium | 60.5 | | 40 | N/A | N/A | No | Exceeded CCL Location is a background well |
| 11/09/04 | REG | W1-14 | Downgrd. | Barium | 147 | | 40 | Yes | W1-5 693 µg/L 7/16/03 | No | Less than historical background |
| 11/08/04 | REG | W1-15 | Downgrd. | Barium | 126 | | 40 | Yes | W1-5 693 µg/L 7/16/03 | No | Less than historical background |
| 11/10/04 | REG | W1-16 | Downgrd. | Barium | 417 | | 40 | Yes | W1-5 693 µg/L 7/16/03 | No | Less than historical background |
| 11/08/04 | REG | W1-19 | Downgrd. | Barium | 81.3 J | | 40 | Yes | W1-5 693 µg/L 7/16/03 | No | Less than historical background |
| 11/08/04 | REG | W1-1R | Downgrd. | Barium | 111 | | 40 | Yes | W1-5 693 µg/L 7/16/03 | No | Less than historical background |
| 11/10/04 | REG | W1-24 | Downgrd. | Barium | 250 | | 40 | Yes | W1-5 693 µg/L 7/16/03 | No | Less than historical background |

Abbreviations and Acronyms:

µg/L - micrograms per liter

CCL - calculated concentration limit

Conc. - concentration

Downgrd. - downgradient

Exceed. - exceedance

J - estimated value

N/A - not applicable

NAS - Naval Air Station

U - analyte not detected above project reporting limit

Upgrad. - upgradient

TABLE B-9

**SUMMARY - VOCs
FORMER NAS MOFFETT FIELD
MARCH 2004 MONITORING SUMMARY - VOCs**

| Date | Sample Type | Well | Gradient | Analyte | Conc. (µg/L) | Qualifier | CCL (µg/L) | Less Than Historical Background | Maximum Historical Background | Track for 2 Out of 3 Exceed. | Comment |
|-------------|--------------------|-------------|-----------------|-------------------------|-------------------------|------------------|-----------------------|------------------------------------------------|----------------------------------------------|---------------------------------------------|----------------|
| | | | | No exceedances reported | | | | | | | |

TABLE B-9

**SUMMARY - VOCs
FORMER NAS MOFFETT FIELD
MAY 2004 MONITORING SUMMARY - VOCs**

| Date | Sample Type | Well | Gradient | Analyte | Conc. (µg/L) | Qualifier | CCL (µg/L) | Less Than Historical Background | Maximum Historical Background | Track for 2 Out of 3 Exceed. | Comment |
|-------------|--------------------|-------------|-----------------|------------------|-------------------------|------------------|-----------------------|------------------------------------------------|----------------------------------------------|---------------------------------------------|---------------------------------|
| 05/24/04 | REG | W1-15 | Downgrd. | Carbon Disulfide | 0.24 J | | 0.21 | Yes | W1-12R 9.8 µg/L 01/16/01 | No | Less than historical background |

TABLE B-9

**SUMMARY - VOCs
FORMER NAS MOFFETT FIELD
NOVEMBER 2004 MONITORING SUMMARY - VOCs**

| Date | Sample Type | Well | Gradient | Analyte | Conc. (µg/L) | Qualifier | CCL (µg/L) | Less Than Historical Background | Maximum Historical Background | Track for 2 Out of 3 Exceed. | Comment |
|----------|-------------|------|----------|------------------|--------------|-----------|------------|---------------------------------|-------------------------------|------------------------------|----------------------------------------------------------------------------------------------------|
| 11/09/04 | FD | W1-5 | Upgrad. | Carbon Disulfide | 0.23 | J | 0.21 | N/A | N/A | No | Location is a background well Sample is field duplicate; regular sample was non-detect (0.5 UJ) |
| 11/10/04 | FD | W1-8 | Upgrad. | Carbon Disulfide | 0.23 | J | 0.21 | N/A | N/A | No | Location is a background well Sample is field duplicate; regular sample was non-detect (0.5 UJ) |

Abbreviations and Acronyms:

µg/L - micrograms per liter

CCL - calculated concentration limit

Conc. - concentration

Downgrd. - downgradient

Exceed. - exceedance

J - estimated value

N/A - not applicable

NAS - Naval Air Station

UJ - analyte not detected above estimated reporting limit

VOC - volatile organic compound

TABLE B-10

SUMMARY - SVOCs
FORMER NAS MOFFETT FIELD
MAY 2004 MONITORING SUMMARY - SVOCs

| Date | Sample Type | Well | Gradient | Analyte | Conc. (µg/L) | Qualifier | CCL (µg/L) | Less Than Historical Background | Maximum Historical Background | Track for 2 Out of 3 Exceed. | Comment |
|----------|-------------|-------|----------|-----------------------------|--------------|-----------|------------|---------------------------------|-------------------------------|------------------------------|----------------------------------------------------------------------------------------------------------------------|
| 05/24/04 | FD | W1-1R | Downgrd. | Caprolactam | 6.2 | J | 5 | No | N/A | Yes | Exceeded CCL Monitor next two sampling rounds Sample is field duplicate; regular sample was non-detect (9.4 U) |
| 05/24/04 | FD | W1-1R | Downgrd. | Bis(2-Ethylhexyl) Phthalate | 42 | | 30 | No | N/A | Yes | Exceeded CCL Monitor next two sampling rounds Sample is field duplicate; regular sample was non-detect (19 U) |

TABLE B-10

SUMMARY - SVOCs
FORMER NAS MOFFETT FIELD
JULY 2004 MONITORING SUMMARY - SVOCs

| Date | Sample Type | Well | Gradient | Analyte | Conc. (µg/L) | Qualifier | CCL (µg/L) | Less Than Historical Background | Maximum Historical Background | Track for 2 Out of 3 Exceed. | Comment |
|----------|-------------|-------|----------|-----------------------------|--------------|-----------|------------|---------------------------------|-------------------------------|------------------------------|---------------------------------------------------------------------|
| 07/07/04 | REG | W1-1R | Downgrd. | Caprolactam | 9.4 | U | 5 | N/A | N/A | Yes | No exceedance in this round Continue to watch for one more round |
| 07/07/04 | REG | W1-1R | Downgrd. | Bis(2-Ethylhexyl) Phthalate | 19 | U | 30 | N/A | N/A | Yes | No exceedance in this round Continue to watch for one more round |

TABLE B-10

**SUMMARY - SVOCs
FORMER NAS MOFFETT FIELD
AUGUST 2004 MONITORING SUMMARY - SVOCs**

| Date | Sample Type | Well | Gradient | Analyte | Conc. (µg/L) | Qualifier | CCL (µg/L) | Less Than Historical Background | Maximum Historical Background | Track for 2 Out of 3 Exceed. | Comment |
|----------|-------------|-------|----------|-----------------------------|--------------|-----------|------------|---------------------------------|-------------------------------|------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| 08/19/04 | REG | W1-1R | Downgrd. | Caprolactam | 9.4 | U | 5 | N/A | N/A | No | No exceedance in this round Second consecutive non-detect since exceedance Consider previous exceedance as false positive |
| 08/19/04 | REG | W1-1R | Downgrd. | Bis(2-Ethylhexyl) Phthalate | 19 | U | 30 | N/A | N/A | No | No exceedance in this round Second consecutive non-detect since exceedance Consider previous exceedance as false positive |

Abbreviations and Acronyms:

µg/L - micrograms per liter

CCL - calculated concentration limit

Conc. - concentration

Downgrd. - downgradient

Exceed. - exceedance

J - estimated value

N/A - not applicable

NAS - Naval Air Station

SVOC - semivolatile organic compound

U - analyte not detected above project reporting limit

APPENDIX C
ANALYTICAL DATA VALIDATION PACKAGES
(Provided on CD only)

REGULARLY SCHEDULED SAMPLING

MARCH 2004

**Project Information
Section
Do not submit to
Laboratory**

| PROJECT NAME | | PURCHASE ORDER NO. | | ANALYSES REQUIRED | | | | | | | | LABORATORY NAME | | Project Information Section Do not submit to Laboratory | | | |
|---------------------------------------------------|--------------------|-----------------------------------------|------------------|-----------------------------------|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|----------------|--------------|--|--|------------------------------------------|--|---------------------------------------------------------------|--|--|--|
| PROJECT LOCATION | | PROJECT NO. | | | | | | | | | | LABORATORY ID (FOR LABORATORY) | | | | | |
| CTO 71-SITE / 1ST QTR | | 20848-TASK 21 | | | | | | | | | | EMAX | | | | | |
| MOFFETT | | 1990-071E | | | | | | | | | | LABORATORY ID (FOR LABORATORY) 040211 | | | | | |
| SAMPLER NAME BILL OGLE | | SAMPLER SIGNATURE <i>[Signature]</i> | | | | | | | | | | | | | | | |
| PROJECT CONTACT LISA BIENKOWSKI | | AIRBILL NUMBER 841560120819 | | | | | | | | | | | | | | | |
| SAMPLE ID | DATE COLLECTED | TIME COLLECTED | NO. OF CONTAINER | LEVEL | T | E | T | A | T | | | | | | | | |
| | | | | 3 | 4 | | | | | | | | | | | | |
| 71-SI-030 | 3-29-04 | 1000 | 3 | X | | W | 10 | DAY | X | | | | | | | | |
| 71-SI-017 | 3-29-04 | 1022 | 10 | X | | W | 10 | DAY | X | | | | | | | | |
| 71-SI-018 | 3-29-04 | 1125 | 30 | X | | W | 10 | DAY | X | | | | | | | | |
| 71-SI-021 | 3-29-04 | 1315 | 6 | X | | W | 10 | DAY | X | | | | | | | | |
| 71-SI-023 | 3-29-04 | 1425 | 10 | X | | W | 10 | DAY | X | | | | | | | | |
| 71-SI-024 | 3-29-04 | 1515 | 10 | X | | W | 10 | DAY | X | | | | | | | | |
| 71-SI-019 | 3-30-04 | 0900 | 10 | X | | W | 10 | DAY | X | | | | | | | | |
| 71-SI-020 | 3-30-04 | 0930 | 10 | X | | W | 10 | DAY | X | | | | | | | | |
| 71-SI-022 | 3-20-04 | 1020 | 10 | X | | W | 10 | DAY | X | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| RELINQUISHED BY (Signature) <i>[Signature]</i> | | DATE 3-30-04 | | RECEIVED BY (Signature) DRIVER | | LABORATORY INSTRUCTIONS/COMMENTS DISSOLVED METALS WERE FIELD FILTERED | | | | | | | | SAMPLING COMMENT: Q1/04 | | | |
| COMPANY TIEV | | TIME 1300 | | COMPANY FEDEX | | | | | | | | | | | | | |
| RELINQUISHED BY (Signature) | | DATE | | RECEIVED BY (Signature) | | COMPOSITE DESCRIPTION | | | | | | | | | | | |
| COMPANY | | TIME | | COMPANY | | | | | | | | | | | | | |
| RELINQUISHED BY (Signature) | | DATE | | RECEIVED BY (Signature) | | SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY) TEMPERATURE _____ SAMPLE CONDITION <input type="checkbox"/> INTACT <input type="checkbox"/> BROKEN COOLER SEAL <input type="checkbox"/> INTACT <input type="checkbox"/> BROKEN | | | | | | | | | | | |
| COMPANY | | TIME | | COMPANY | | | | | | | | | | | | | |



LABORATORIES, INC.

1835 W. 205th Street
Torrance, CA-90501
Tel: (310) 618-8889
Fax: (310) 618-0818

Date: 04-28-2004
EMAX Batch No.: 04C211

Attn: Lisa Bienkowski

Tetra Tech FW, Inc.
1940 E Deere Ave, Suite 200
Santa Ana CA 92705

Subject: Laboratory Report
Project: MFA, CTO 71, Site 1

Enclosed is the Laboratory report for samples received on
03/31/04. The data reported include :

| Sample ID | Control # | Col Date | Matrix | Analysis |
|-----------|-----------|----------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 71-s1-030 | C211-01 | 03/29/04 | WATER | VOLATILE ORGANICS BY GC/MS |
| 71-s1-017 | C211-02 | 03/29/04 | WATER | VOLATILE ORGANICS BY GC/MS PESTICIDES ORGANOCHLORINE POLYCHLORINATED BIPHENYLS (PCBS) METALS BY ICP MERCURY METALS DISSOLVED BY ICP MERCURY DISSOLVED TOTAL ORGANIC CARBON NITRATE/NITRITE-N |
| 71-s1-018 | C211-03 | 03/29/04 | WATER | VOLATILE ORGANICS BY GC/MS PESTICIDES ORGANOCHLORINE POLYCHLORINATED BIPHENYLS (PCBS) METALS BY ICP MERCURY METALS DISSOLVED BY ICP MERCURY DISSOLVED TOTAL ORGANIC CARBON NITRATE/NITRITE-N |

| Sample ID | Control # | Col Date | Matrix | Analysis |
|-----------|-----------|----------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 71-S1-023 | C211-04 | 03/29/04 | WATER | VOLATILE ORGANICS BY GC/MS PESTICIDES ORGANOCHLORINE POLYCHLORINATED BIPHENYLS (PCBS) METALS BY ICP MERCURY METALS DISSOLVED BY ICP MERCURY DISSOLVED TOTAL ORGANIC CARBON NITRATE/NITRITE-N |
| 71-S1-024 | C211-05 | 03/29/04 | WATER | VOLATILE ORGANICS BY GC/MS PESTICIDES ORGANOCHLORINE POLYCHLORINATED BIPHENYLS (PCBS) METALS BY ICP MERCURY METALS DISSOLVED BY ICP MERCURY DISSOLVED TOTAL ORGANIC CARBON NITRATE/NITRITE-N |
| 71-S1-019 | C211-06 | 03/30/04 | WATER | VOLATILE ORGANICS BY GC/MS PESTICIDES ORGANOCHLORINE POLYCHLORINATED BIPHENYLS (PCBS) METALS BY ICP MERCURY METALS DISSOLVED BY ICP MERCURY DISSOLVED TOTAL ORGANIC CARBON NITRATE/NITRITE-N |
| 71-S1-020 | C211-07 | 03/30/04 | WATER | VOLATILE ORGANICS BY GC/MS PESTICIDES ORGANOCHLORINE POLYCHLORINATED BIPHENYLS (PCBS) METALS BY ICP MERCURY METALS DISSOLVED BY ICP MERCURY DISSOLVED TOTAL ORGANIC CARBON NITRATE/NITRITE-N |
| 71-S1-022 | C211-08 | 03/30/04 | WATER | VOLATILE ORGANICS BY GC/MS PESTICIDES ORGANOCHLORINE POLYCHLORINATED BIPHENYLS (PCBS) METALS BY ICP MERCURY |

| Sample ID | Control # | Col Date | Matrix | Analysis |
|--------------|-----------|----------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 71-S1-018MS | C211-03M | 03/29/04 | WATER | METALS DISSOLVED BY ICP MERCURY DISSOLVED TOTAL ORGANIC CARBON NITRATE/NITRITE-N VOLATILE ORGANICS BY GC/MS PESTICIDES ORGANOCHLORINE POLYCHLORINATED BIPHENYLS (PCBS) METALS BY ICP MERCURY METALS DISSOLVED BY ICP MERCURY DISSOLVED TOTAL ORGANIC CARBON NITRATE/NITRITE-N VOLATILE ORGANICS BY GC/MS PESTICIDES ORGANOCHLORINE POLYCHLORINATED BIPHENYLS (PCBS) METALS BY ICP MERCURY METALS DISSOLVED BY ICP MERCURY DISSOLVED TOTAL ORGANIC CARBON NITRATE/NITRITE-N |
| 71-S1-018MSD | C211-03S | 03/29/04 | WATER | METALS DISSOLVED BY ICP MERCURY DISSOLVED TOTAL ORGANIC CARBON NITRATE/NITRITE-N VOLATILE ORGANICS BY GC/MS PESTICIDES ORGANOCHLORINE POLYCHLORINATED BIPHENYLS (PCBS) METALS BY ICP MERCURY METALS DISSOLVED BY ICP MERCURY DISSOLVED TOTAL ORGANIC CARBON NITRATE/NITRITE-N |
| 71-S1-018DUP | C211-03D | 03/29/04 | WATER | METALS DISSOLVED BY ICP MERCURY DISSOLVED TOTAL ORGANIC CARBON NITRATE/NITRITE-N |

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning these results.

Sincerely yours,

K. Y. Pang

Kam Y. Pang, Ph.D.
Laboratory Director

CASE NARRATIVE

CLIENT: TETRA TECH FW, INC.
PROJECT: MFA, CTO 71, SITE 1
SDG: 04C211

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Eight (8) water samples were received on 03/31/04 for Volatile Organic analysis by Method 5030B/8260B in accordance with USEPA SW846, 3rd edition.

1. Holding Time

Analytical holding time was met.

2. Tuning and Calibration

Tuning and calibration were carried out at 12-hour interval. All QC requirements were met.

3. Method Blank

Method blank was free of contamination at the reporting limit.

4. Lab Control Sample/Lab Control Sample Duplicate

All recoveries were within QC limits.

5. Surrogate Recovery

Recoveries were within QC limits.

6. Matrix Spike/Matrix Spike Duplicate

Sample C211-03 was spiked. All recoveries were within QC limit.

7. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criteria were met.

SW 50308/82608
VOLATILE ORGANICS BY GC/MS

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Client       : TETRA TECH FW, INC.      Date Collected: 03/29/04
Project      : MFA, CTO 71, SITE 1     Date Received: 03/31/04
Batch No.    : 04C211                  Date Extracted: 04/01/04 10:11
Sample ID    : 71-S1-030               Date Analyzed: 04/01/04 10:11
Lab Samp ID  : C211-01                 Dilution Factor: 1
Lab File ID  : RCB718                  Matrix: WATER
Ext Btch ID  : V003C68                 % Moisture: NA
Calib. Ref.  : RCB248                  Instrument ID: T-003
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| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 1,1,1,2-TETRACHLOROETHANE | ND | .5 | .2 |
| 1,1,1-TRICHLOROETHANE | ND | .5 | .2 |
| 1,1,2,2-TETRACHLOROETHANE | ND | .5 | .3 |
| 1,1,2-TRICHLOROETHANE | ND | .5 | .3 |
| 1,1-DICHLOROETHANE | ND | .5 | .2 |
| 1,1-DICHLOROETHENE | ND | .5 | .2 |
| 1,1-DICHLOROPROPENE | ND | .5 | .2 |
| 1,2,3-TRICHLOROBENZENE | ND | .5 | .2 |
| 1,2,3-TRICHLOROPROPANE | ND | .5 | .2 |
| 1,2,4-TRICHLOROBENZENE | ND | .5 | .2 |
| 1,2,4-TRIMETHYLBENZENE | ND | .5 | .2 |
| 1,2-DIBROMO-3-CHLOROPROPANE | ND | .5 | .1 |
| 1,2-DICHLOROBENZENE | ND | .5 | .2 |
| 1,2-DICHLOROETHANE | ND | .5 | .2 |
| 1,2-DICHLOROPROPANE | ND | .5 | .2 |
| 1,2-ETHYLENEDIBROMIDE | ND | .5 | .2 |
| 1,3,5-TRIMETHYLBENZENE | ND | .5 | .2 |
| 1,3-DICHLOROBENZENE | ND | .5 | .2 |
| 1,3-DICHLOROPROPANE | ND | .5 | .2 |
| 1,4-DICHLOROBENZENE | ND | .5 | .2 |
| 2,2-DICHLOROPROPANE | ND | .5 | .2 |
| 2-BUTANONE | ND | 10 | .5 |
| 2-CHLOROTOLUENE | ND | 10 | .5 |
| 2-HEXANONE | ND | 10 | .1 |
| 4-CHLOROTOLUENE | ND | .5 | .2 |
| 4-METHYL-2-PENTANONE | ND | 10 | .1 |
| ACETONE | ND | 10 | .2 |
| BENZENE | ND | .5 | .2 |
| BROMOBENZENE | ND | .5 | .2 |
| BROMOCHLOROMETHANE | ND | .5 | .2 |
| BROMODICHLOROMETHANE | ND | .5 | .2 |
| BROMOFORM | ND | .5 | .2 |
| BROMOMETHANE | ND | .5 | .2 |
| CARBON DISULFIDE | ND | .5 | .2 |
| CARBON TETRACHLORIDE | ND | .5 | .2 |
| CHLOROBENZENE | ND | .5 | .2 |
| CHLOROETHANE | ND | .5 | .2 |
| CHLOROFORM | ND | .5 | .2 |
| CHLOROMETHANE | ND | .5 | .2 |
| CIS-1,2-DICHLOROETHENE | ND | .5 | .2 |
| CIS-1,3-DICHLOROPROPENE | ND | .5 | .2 |
| DIBROMOCHLOROMETHANE | ND | .5 | .2 |
| DIBROMOMETHANE | ND | .5 | .2 |
| DICHLORODIFLUOROMETHANE | ND | .5 | .2 |
| ETHYLBENZENE | ND | .5 | .2 |
| HEXACHLOROBUTADIENE | ND | .5 | .2 |
| ISOPROPYL BENZENE | ND | .5 | .2 |
| M/P-XYLENES | ND | .5 | .2 |
| METHYLENE CHLORIDE | ND | .5 | .2 |
| N-BUTYLBENZENE | ND | .5 | .2 |
| N-PROPYLBENZENE | ND | .5 | .2 |
| NAPHTHALENE | ND | .5 | .2 |
| O-XYLENE | ND | .5 | .2 |
| P-ISOPROPYLTOLUENE | ND | .5 | .2 |
| SEC-BUTYLBENZENE | ND | .5 | .2 |
| STYRENE | ND | .5 | .2 |
| TERT-BUTYLBENZENE | ND | .5 | .2 |
| TETRACHLOROETHYLENE | ND | .5 | .2 |
| TOLUENE | ND | .5 | .2 |
| TRANS-1,2-DICHLOROETHENE | ND | .5 | .2 |
| TRANS-1,3-DICHLOROPROPENE | ND | .5 | .2 |
| TRICHLOROETHENE | ND | .5 | .2 |
| TRICHLOROFLUOROMETHANE | ND | .5 | .2 |
| VINYL CHLORIDE | ND | 1 | .5 |
| ACRYLONITRILE | ND | 10 | .5 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|-----------------------|------------|----------|
| 1,2-DICHLOROETHANE-D4 | 108 | 63-132 |
| TOLUENE-D8 | 106 | 75-122 |
| BROMOFLUOROBENZENE | 108 | 73-129 |

R.L. : Reporting limit
 * : Out of QC
 E : Exceeded calibration range
 B : Found in associated method blank
 J : Value between R.L. and MDL
 D : Value from dilution analysis
 D.O. : Diluted out

SW 50308/82608
 VOLATILE ORGANICS BY GC/MS

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=====
Client       : TETRA TECH FW, INC.      Date Collected: 03/29/04
Project      : MFA, CTO 71, SITE 1      Date Received: 03/31/04
Batch No.    : 04C211                  Date Extracted: 04/01/04 11:29
Sample ID    : 71-S1-017               Date Analyzed: 04/01/04 11:29
Lab Samp ID  : C211-02                 Dilution Factor: 1
Lab File ID  : RCB720                  Matrix          : WATER
Ext Btch ID  : V003C68                 % Moisture      : NA
Calib. Ref.  : RCB248                  Instrument ID   : T-003
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| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 1,1,1,2-TETRACHLOROETHANE | ND | 5 | 2 |
| 1,1,1-TRICHLOROETHANE | ND | 5 | 2 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 1 | 3 |
| 1,1,2-TRICHLOROETHANE | ND | 5 | 2 |
| 1,1-DICHLOROETHANE | ND | 5 | 2 |
| 1,1-DICHLOROETHENE | ND | 5 | 2 |
| 1,1-DICHLOROPROPENE | ND | 5 | 2 |
| 1,2,3-TRICHLOROBENZENE | ND | 5 | 2 |
| 1,2,3-TRICHLOROPROPANE | ND | 5 | 2 |
| 1,2,4-TRICHLOROBENZENE | ND | 5 | 2 |
| 1,2,4-TRIMETHYLBENZENE | ND | 5 | 2 |
| 1,2-DIBROMO-3-CHLOROPROPANE | ND | 5 | 2 |
| 1,2-DICHLOROBENZENE | ND | 5 | 2 |
| 1,2-DICHLOROETHANE | ND | 5 | 2 |
| 1,2-DICHLOROPROPANE | ND | 5 | 2 |
| 1,2-ETHYLENEDIBROMIDE | ND | 5 | 2 |
| 1,3,5-TRIMETHYLBENZENE | ND | 5 | 2 |
| 1,3-DICHLOROBENZENE | ND | 5 | 2 |
| 1,3-DICHLOROPROPANE | ND | 5 | 2 |
| 1,4-DICHLOROBENZENE | ND | 5 | 2 |
| 2,2-DICHLOROPROPANE | ND | 5 | 2 |
| 2-BUTANONE | ND | 10 | 5 |
| 2-CHLOROTOLUENE | ND | 10 | 5 |
| 2-HEXANONE | ND | 10 | 5 |
| 4-CHLOROTOLUENE | ND | 10 | 5 |
| 4-METHYL-2-PENTANONE | ND | 10 | 5 |
| ACETONE | ND | 10 | 5 |
| BENZENE | ND | 5 | 2 |
| BROMOBENZENE | ND | 5 | 2 |
| BROMOCHLOROMETHANE | ND | 5 | 2 |
| BROMODICHLOROMETHANE | ND | 5 | 2 |
| BROMOFORM | ND | 5 | 2 |
| BROMOMETHANE | ND | 5 | 2 |
| CARBON DISULFIDE | ND | 5 | 2 |
| CARBON TETRACHLORIDE | ND | 5 | 2 |
| CHLOROBENZENE | ND | 5 | 2 |
| CHLOROETHANE | ND | 5 | 2 |
| CHLOROFORM | ND | 5 | 2 |
| CHLOROMETHANE | ND | 5 | 2 |
| CIS-1,2-DICHLOROETHENE | ND | 5 | 2 |
| CIS-1,3-DICHLOROPROPENE | ND | 5 | 2 |
| DIBROMOCHLOROMETHANE | ND | 5 | 2 |
| DIBROMOMETHANE | ND | 5 | 2 |
| DICHLORODIFLUOROMETHANE | ND | 5 | 2 |
| ETHYLBENZENE | ND | 5 | 2 |
| HEXACHLOROBUTADIENE | ND | 5 | 2 |
| ISOPROPYL BENZENE | ND | 5 | 2 |
| M/P-XYLENES | ND | 5 | 2 |
| METHYLENE CHLORIDE | ND | 5 | 2 |
| N-BUTYLBENZENE | ND | 5 | 2 |
| N-PROPYLBENZENE | ND | 5 | 2 |
| NAPHTHALENE | ND | 5 | 2 |
| O-XYLENE | ND | 5 | 2 |
| P-ISOPROPYLTOLUENE | ND | 5 | 2 |
| SEC-BUTYLBENZENE | ND | 5 | 2 |
| STYRENE | ND | 5 | 2 |
| TERT-BUTYLBENZENE | ND | 5 | 2 |
| TETRACHLOROETHYLENE | ND | 5 | 2 |
| TOLUENE | ND | 5 | 2 |
| TRANS-1,2-DICHLOROETHENE | ND | 5 | 2 |
| TRANS-1,3-DICHLOROPROPENE | ND | 5 | 2 |
| TRICHLOROETHENE | ND | 5 | 2 |
| TRICHLOROFLUOROMETHANE | ND | 5 | 2 |
| VINYL CHLORIDE | ND | 10 | 5 |
| ACRYLONITRILE | ND | 10 | 5 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|-----------------------|------------|----------|
| 1,2-DICHLOROETHANE-D4 | 126 | 63-132 |
| TOLUENE-D8 | 96 | 79-122 |
| BROMOFLUOROBENZENE | 98 | 73-129 |

R.L. : Reporting limit
 * : Out of QC
 E : Exceeded calibration range
 B : Found in associated method blank
 J : Value between R.L. and MDL
 D : Value from dilution analysis
 D.O. : Diluted out

2007

SW 50308/82608
 VOLATILE ORGANICS BY GC/MS

| | | | |
|-------------|-----------------------|-----------------|------------------|
| Client | : TETRA TECH FW, INC. | Date Collected | : 03/29/04 |
| Project | : MFA, CTD 71, SITE 1 | Date Received | : 03/31/04 |
| Batch No. | : 04C211 | Date Extracted | : 04/01/04 10:50 |
| Sample ID | : 71-S1-018 | Date Analyzed | : 04/01/04 10:50 |
| Lab Samp ID | : C211-03 | Dilution Factor | : 1 |
| Lab File ID | : RCB719 | Matrix | : WATER |
| Ext Btch ID | : V003C68 | % Moisture | : NA |
| Calib. Ref. | : RCB248 | Instrument ID | : T-003 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 1,1,1,2-TETRACHLOROETHANE | ND | 5 | 2 |
| 1,1,1-TRICHLOROETHANE | ND | 5 | 2 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 1 | 3 |
| 1,1,2-TRICHLOROETHANE | ND | 5 | 2 |
| 1,1-DICHLOROETHANE | ND | 5 | 2 |
| 1,1-DICHLOROETHENE | ND | 5 | 2 |
| 1,1-DICHLOROPROPENE | ND | 5 | 2 |
| 1,2,3-TRICHLOROBENZENE | ND | 5 | 2 |
| 1,2,3-TRICHLOROPROPANE | ND | 5 | 2 |
| 1,2,4-TRICHLOROBENZENE | ND | 5 | 2 |
| 1,2,4-TRIMETHYLBENZENE | ND | 5 | 2 |
| 1,2-DIBROMO-3-CHLOROPROPANE | ND | 5 | 2 |
| 1,2-DICHLOROBENZENE | ND | 5 | 2 |
| 1,2-DICHLOROETHANE | ND | 5 | 2 |
| 1,2-DICHLOROPROPANE | ND | 5 | 2 |
| 1,2-ETHYLENEDIBROMIDE | ND | 5 | 2 |
| 1,3,5-TRIMETHYLBENZENE | ND | 5 | 2 |
| 1,3-DICHLOROBENZENE | ND | 5 | 2 |
| 1,3-DICHLOROPROPANE | ND | 5 | 2 |
| 1,4-DICHLOROBENZENE | ND | 5 | 2 |
| 2,2-DICHLOROPROPANE | ND | 5 | 2 |
| 2-BUTANONE | ND | 10 | 2 |
| 2-CHLOROTOLUENE | ND | 5 | 2 |
| 2-HEXANONE | ND | 10 | 2 |
| 4-CHLOROTOLUENE | ND | 5 | 2 |
| 4-METHYL-2-PENTANONE | ND | 10 | 2 |
| ACETONE | ND | 10 | 2 |
| BENZENE | ND | 5 | 2 |
| BROMOBENZENE | ND | 5 | 2 |
| BROMOCHLOROMETHANE | ND | 5 | 2 |
| BROMODICHLOROMETHANE | ND | 5 | 2 |
| BROMOFORM | ND | 5 | 2 |
| BROMOMETHANE | ND | 5 | 2 |
| CARBON DISULFIDE | 21J | 1 | 2 |
| CARBON TETRACHLORIDE | ND | 5 | 2 |
| CHLOROBENZENE | ND | 5 | 2 |
| CHLOROETHANE | ND | 1 | 2 |
| CHLOROFORM | ND | 5 | 2 |
| CHLOROMETHANE | ND | 1 | 2 |
| CIS-1,2-DICHLOROETHENE | ND | 5 | 2 |
| CIS-1,3-DICHLOROPROPENE | ND | 5 | 2 |
| DIBROMOCHLOROMETHANE | ND | 5 | 2 |
| DIBROMOMETHANE | ND | 5 | 2 |
| DICHLORODIFLUOROMETHANE | ND | 1 | 2 |
| ETHYLBENZENE | ND | 5 | 2 |
| HEXACHLOROBUTADIENE | ND | 5 | 2 |
| ISOPROPYL BENZENE | ND | 5 | 2 |
| M/P-XYLENES | ND | 1 | 2 |
| METHYLENE CHLORIDE | ND | 5 | 2 |
| N-BUTYLBENZENE | ND | 5 | 2 |
| N-PROPYLBENZENE | ND | 5 | 2 |
| NAPHTHALENE | ND | 5 | 2 |
| O-XYLENE | ND | 5 | 2 |
| P-ISOPROPYLTOLUENE | ND | 5 | 2 |
| SEC-BUTYLBENZENE | ND | 5 | 2 |
| STYRENE | ND | 5 | 2 |
| TERT-BUTYLBENZENE | ND | 5 | 2 |
| TETRACHLOROETHYLENE | ND | 5 | 2 |
| TOLUENE | ND | 5 | 2 |
| TRANS-1,2-DICHLOROETHENE | ND | 5 | 2 |
| TRANS-1,3-DICHLOROPROPENE | ND | 5 | 2 |
| TRICHLOROETHENE | ND | 5 | 2 |
| TRICHLOROFLUOROMETHANE | ND | 1 | 2 |
| VINYL CHLORIDE | ND | 1 | 2 |
| ACRYLONITRILE | ND | 10 | 5 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|-----------------------|------------|----------|
| 1,2-DICHLOROETHANE-D4 | 122 | 63-132 |
| TOLUENE-D8 | 100 | 75-122 |
| BROMOFLUOROBENZENE | 101 | 73-129 |

R.L. : Reporting limit
 * : Out of QC
 E : Exceeded calibration range
 B : Found in associated method blank
 J : Value between R.L. and MDL
 D : Value from dilution analysis
 D.O. : Diluted out

SW 50308/82608
 VOLATILE ORGANICS BY GC/MS

| | |
|------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 03/29/04 |
| Project : MFA CTO 71, SITE 1 | Date Received: 03/31/04 |
| Batch No. : 04C211 | Date Extracted: 04/01/04 12:08 |
| Sample ID: 71-S1-023 | Date Analyzed: 04/01/04 12:08 |
| Lab Smp ID: C211-04 | Dilution Factor: 1 |
| Lab File ID: RCB721 | Matrix: WATER |
| Ext Btch ID: V003C68 | % Moisture: NA |
| Calib. Ref.: RCB248 | Instrument ID: T-003 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 1,1,1,2-TETRACHLOROETHANE | ND | .5 | .2 |
| 1,1,1-TRICHLOROETHANE | ND | .5 | .2 |
| 1,1,2,2-TETRACHLOROETHANE | ND | .1 | .3 |
| 1,1,2-TRICHLOROETHANE | ND | .5 | .2 |
| 1,1-DICHLOROETHANE | ND | .5 | .2 |
| 1,1-DICHLOROETHENE | ND | .5 | .2 |
| 1,1-DICHLOROPROPENE | ND | .5 | .2 |
| 1,2,3-TRICHLOROBENZENE | ND | .5 | .2 |
| 1,2,3-TRICHLOROPROPANE | ND | .5 | .2 |
| 1,2,4-TRICHLOROBENZENE | ND | .5 | .2 |
| 1,2,4-TRIMETHYLBENZENE | ND | .5 | .2 |
| 1,2-DIBROMO-3-CHLOROPROPANE | ND | .5 | .2 |
| 1,2-DICHLOROBENZENE | ND | .5 | .2 |
| 1,2-DICHLOROETHANE | ND | .5 | .2 |
| 1,2-DICHLOROPROPANE | ND | .5 | .2 |
| 1,2-ETHYLENEDIBROMIDE | ND | .5 | .2 |
| 1,2,5-TRIMETHYLBENZENE | ND | .5 | .2 |
| 1,3-DICHLOROBENZENE | ND | .5 | .2 |
| 1,3-DICHLOROPROPANE | ND | .5 | .2 |
| 1,4-DICHLOROBENZENE | ND | .5 | .2 |
| 2,2-DICHLOROPROPANE | ND | .5 | .2 |
| 2-BUTANONE | ND | 10 | .2 |
| 2-CHLOROTOLUENE | ND | .5 | .2 |
| 2-HEXANONE | ND | 10 | .2 |
| 4-CHLOROTOLUENE | ND | .5 | .2 |
| 4-METHYL-2-PENTANONE | ND | 10 | .2 |
| ACETONE | ND | 10 | .2 |
| BENZENE | ND | .5 | .2 |
| BROMOBENZENE | ND | .5 | .2 |
| BROMOCHLOROMETHANE | ND | .5 | .2 |
| BROMODICHLOROMETHANE | ND | .5 | .2 |
| BROMOFORM | ND | .5 | .2 |
| BROMOMETHANE | ND | .1 | .2 |
| CARBON DISULFIDE | ND | .5 | .2 |
| CARBON TETRACHLORIDE | ND | .5 | .2 |
| CHLOROBENZENE | ND | .5 | .2 |
| CHLOROETHANE | ND | .1 | .2 |
| CHLOROFORM | ND | .5 | .2 |
| CHLOROMETHANE | ND | .5 | .2 |
| CIS-1,2-DICHLOROETHENE | ND | .5 | .2 |
| CIS-1,3-DICHLOROPROPENE | ND | .5 | .2 |
| DIBROMOCHLOROMETHANE | ND | .5 | .2 |
| DIBROMOMETHANE | ND | .5 | .2 |
| DICHLORODIFLUOROMETHANE | ND | .1 | .2 |
| ETHYLBENZENE | ND | .5 | .2 |
| HEXACHLOROBUTADIENE | ND | .5 | .2 |
| ISOPROPYL BENZENE | ND | .5 | .2 |
| M/P-XYLENES | ND | .1 | .2 |
| METHYLENE CHLORIDE | ND | .5 | .2 |
| N-BUTYLBENZENE | ND | .5 | .2 |
| N-PROPYLBENZENE | ND | .5 | .2 |
| NAPHTHALENE | ND | .5 | .2 |
| O-XYLENE | ND | .5 | .2 |
| P-ISOPROPYLTOLUENE | ND | .5 | .2 |
| SEC-BUTYLBENZENE | ND | .5 | .2 |
| STYRENE | ND | .5 | .2 |
| TERT-BUTYLBENZENE | ND | .5 | .2 |
| TETRACHLOROETHYLENE | ND | .5 | .2 |
| TOLUENE | ND | .5 | .2 |
| TRANS-1,2-DICHLOROETHENE | ND | .5 | .2 |
| TRANS-1,3-DICHLOROPROPENE | ND | .5 | .2 |
| TRICHLOROETHENE | ND | .5 | .2 |
| TRICHLOROFLUOROMETHANE | ND | .1 | .2 |
| VINYL CHLORIDE | ND | .1 | .2 |
| ACRYLONITRILE | ND | 10 | .2 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|-----------------------|------------|----------|
| 1,2-DICHLOROETHANE-D4 | 125 | 63-132 |
| TOLUENE-D8 | 95 | 75-122 |
| BROMOFLUOROBENZENE | 99 | 73-129 |

R.L. : Reporting limit
 * : Out of QC
 E : Exceeded calibration range
 B : Found in associated method blank
 J : Value between R.L. and MDL
 D : Value from dilution analysis
 D.O. : Diluted out

SW 50308/82608
 VOLATILE ORGANICS BY GC/MS

| | |
|-------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 03/29/04 |
| Project : MFA, CTO 71, SITE 1 | Date Received: 03/31/04 |
| Batch No. : 04C211 | Date Extracted: 04/01/04 14:46 |
| Sample ID: 71-S1-024 | Date Analyzed: 04/01/04 14:46 |
| Lab Samp ID: C211-05 | Dilution Factor: 1 |
| Lab File ID: RCB725 | Matrix : WATER |
| Ext Btch ID: V003C68 | % Moisture : NA |
| Calib. Ref.: RCB248 | Instrument ID : T-003 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-------------------------------|-------------------|--------------|---------------|
| 1,1,1,2-TETRACHLOROETHANE | ND | 5 | 2 |
| 1,1,1-TRICHLOROETHANE | ND | 5 | 2 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 5 | 2 |
| 1,1,2-TRICHLOROETHANE | ND | 5 | 2 |
| 1,1-DICHLOROETHANE | ND | 5 | 2 |
| 1,1-DICHLOROETHENE | ND | 5 | 2 |
| 1,1-DICHLOROPROPENE | ND | 5 | 2 |
| 1,2,3-TRICHLOROBENZENE | ND | 5 | 2 |
| 1,2,3-TRICHLOROPROPANE | ND | 5 | 2 |
| 1,2,4-TRICHLOROBENZENE | ND | 5 | 2 |
| 1,2,4-TRIMETHYLBENZENE | ND | 5 | 2 |
| 1,3,5-DIBROMO-3-CHLOROPROPANE | ND | 5 | 2 |
| 1,3,5-DICHLOROBENZENE | ND | 5 | 2 |
| 1,3,5-DICHLOROETHANE | ND | 5 | 2 |
| 1,3,5-DICHLOROPROPANE | ND | 5 | 2 |
| 1,3,5-ETHYLENEBROMIDE | ND | 5 | 2 |
| 1,3,5-TRIMETHYLBENZENE | ND | 5 | 2 |
| 1,3,5-DICHLOROBENZENE | ND | 5 | 2 |
| 1,3,5-DICHLOROPROPANE | ND | 5 | 2 |
| 1,4-DICHLOROBENZENE | ND | 5 | 2 |
| 2,2-DICHLOROPROPANE | ND | 5 | 2 |
| 2-BUTANONE | ND | 10 | 2 |
| 2-CHLOROTOLUENE | ND | 5 | 2 |
| 2-HEXANONE | ND | 10 | 2 |
| 4-CHLOROTOLUENE | ND | 5 | 2 |
| 4-METHYL-2-PENTANONE | ND | 10 | 2 |
| ACETONE | 6J | 10 | 2 |
| BENZENE | ND | 5 | 2 |
| BROMOBENZENE | ND | 5 | 2 |
| BROMOCHLOROMETHANE | ND | 5 | 2 |
| BROMODICHLOROMETHANE | ND | 5 | 2 |
| BROMOFORM | ND | 5 | 2 |
| BROMOMETHANE | ND | 5 | 2 |
| CARBON DISULFIDE | ND | 5 | 2 |
| CARBON TETRACHLORIDE | ND | 5 | 2 |
| CHLOROBENZENE | ND | 5 | 2 |
| CHLOROETHANE | ND | 5 | 2 |
| CHLOROFORM | ND | 5 | 2 |
| CHLOROMETHANE | ND | 5 | 2 |
| CIS-1,2-DICHLOROETHENE | ND | 5 | 2 |
| CIS-1,3-DICHLOROPROPENE | ND | 5 | 2 |
| DIBROMOCHLOROMETHANE | ND | 5 | 2 |
| DIBROMOMETHANE | ND | 5 | 2 |
| DICHLORODIFLUOROMETHANE | ND | 5 | 2 |
| ETHYLBENZENE | ND | 5 | 2 |
| HEXACHLOROBUTADIENE | ND | 5 | 2 |
| ISOPROPYL BENZENE | ND | 5 | 2 |
| M/P-XYLENES | ND | 5 | 2 |
| METHYLENE CHLORIDE | ND | 5 | 2 |
| N-BUTYLBENZENE | ND | 5 | 2 |
| N-PROPYLBENZENE | ND | 5 | 2 |
| NAPHTHALENE | ND | 5 | 2 |
| O-XYLENE | ND | 5 | 2 |
| P-ISOPROPYLTOLUENE | ND | 5 | 2 |
| SEC-BUTYLBENZENE | ND | 5 | 2 |
| STYRENE | ND | 5 | 2 |
| TERT-BUTYLBENZENE | ND | 5 | 2 |
| TETRACHLOROETHYLENE | ND | 5 | 2 |
| TOLUENE | ND | 5 | 2 |
| TRANS-1,2-DICHLOROETHENE | ND | 5 | 2 |
| TRANS-1,3-DICHLOROPROPENE | ND | 5 | 2 |
| TRICHLOROETHENE | ND | 5 | 2 |
| TRICHLOROFLUOROMETHANE | ND | 1 | 2 |
| VINYL CHLORIDE | ND | 1 | 2 |
| ACRYLONITRILE | ND | 10 | 2 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|-----------------------|------------|----------|
| 1,2-DICHLOROETHANE-D4 | 120 | 63-132 |
| TOLUENE-DB | 101 | 75-122 |
| BROMOFLUOROBENZENE | 101 | 73-129 |

R.L. : Reporting limit
 * : Out of QC
 E : Exceeded calibration range
 B : Found in associated method blank
 J : Value between R.L. and MDL
 D : Value from dilution analysis
 D.O. : Diluted out

2017

SW 5030B/8260B
 VOLATILE ORGANICS BY GC/MS

| | |
|-------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 03/30/04 |
| Project : MFA, CTO 71, SITE 1 | Date Received: 03/31/04 |
| Batch No. : 04C211 | Date Extracted: 04/01/04 12:48 |
| Sample ID: 71-51-019 | Date Analyzed: 04/01/04 12:48 |
| Lab Samp ID: C211-06 | Dilution Factor: 1 |
| Lab File ID: RCB722 | Matrix : WATER |
| Ext Btch ID: V003C68 | % Moisture : NA |
| Calib. Ref.: RCB248 | Instrument ID : T-003 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 1,1,1,2-TETRACHLOROETHANE | ND | .5 | .2 |
| 1,1,1-TRICHLOROETHANE | ND | .5 | .2 |
| 1,1,2,2-TETRACHLOROETHANE | ND | .5 | .2 |
| 1,1,2-TRICHLOROETHANE | ND | .5 | .2 |
| 1,1-DICHLOROETHANE | ND | .5 | .2 |
| 1,1-DICHLOROETHENE | ND | .5 | .2 |
| 1,1-DICHLOROPROPENE | ND | .5 | .2 |
| 1,2,3-TRICHLOROBENZENE | ND | .5 | .2 |
| 1,2,3-TRICHLOROPROPANE | ND | .5 | .2 |
| 1,2,4-TRICHLOROBENZENE | ND | .5 | .2 |
| 1,2,4-TRIMETHYLBENZENE | ND | .5 | .2 |
| 1,2-DIBROMO-3-CHLOROPROPANE | ND | .5 | .2 |
| 1,2-DICHLOROBENZENE | ND | .5 | .2 |
| 1,2-DICHLOROETHANE | ND | .5 | .2 |
| 1,2-DICHLOROPROPANE | ND | .5 | .2 |
| 1,2-ETHYLENEDIBROMIDE | ND | .5 | .2 |
| 1,2,5-TRIMETHYLBENZENE | ND | .5 | .2 |
| 1,3-DICHLOROBENZENE | ND | .5 | .2 |
| 1,3-DICHLOROPROPANE | ND | .5 | .2 |
| 1,4-DICHLOROBENZENE | ND | .5 | .2 |
| 2,2-DICHLOROPROPANE | ND | .5 | .2 |
| 2-BUTANONE | ND | 10 | .5 |
| 2-CHLOROTOLUENE | ND | 10 | .5 |
| 2-HEXANONE | ND | 10 | .5 |
| 4-CHLOROTOLUENE | ND | 10 | .5 |
| 4-METHYL-2-PENTANONE | ND | 10 | .5 |
| ACETONE | ND | 10 | .5 |
| BENZENE | ND | .5 | .2 |
| BROMOBENZENE | ND | .5 | .2 |
| BROMOCHLOROMETHANE | ND | .5 | .2 |
| BROMODICHLOROMETHANE | ND | .5 | .2 |
| BROMOFORM | ND | .5 | .2 |
| BROMOMETHANE | ND | .5 | .2 |
| CARBON DISULFIDE | ND | .5 | .2 |
| CARBON TETRACHLORIDE | ND | .5 | .2 |
| CHLOROBENZENE | ND | .5 | .2 |
| CHLOROETHANE | ND | .5 | .2 |
| CHLOROFORM | ND | .5 | .2 |
| CHLOROMETHANE | ND | .5 | .2 |
| CIS-1,2-DICHLOROETHENE | ND | .5 | .2 |
| CIS-1,3-DICHLOROPROPENE | ND | .5 | .2 |
| DIBROMOCHLOROMETHANE | ND | .5 | .2 |
| DIBROMOMETHANE | ND | .5 | .2 |
| DICHLORODIFLUOROMETHANE | ND | .5 | .2 |
| ETHYLBENZENE | ND | .5 | .2 |
| HEXACHLOROBUTADIENE | ND | .5 | .2 |
| ISOPROPYL BENZENE | ND | .5 | .2 |
| M/P-XYLENES | ND | .5 | .2 |
| METHYLENE CHLORIDE | ND | .5 | .2 |
| N-BUTYLBENZENE | ND | .5 | .2 |
| N-PROPYLBENZENE | ND | .5 | .2 |
| NAPHTHALENE | ND | .5 | .2 |
| O-XYLENE | ND | .5 | .2 |
| P-ISOPROPYLTOLUENE | ND | .5 | .2 |
| SEC-BUTYLBENZENE | ND | .5 | .2 |
| STYRENE | ND | .5 | .2 |
| TERT-BUTYLBENZENE | ND | .5 | .2 |
| TETRACHLOROETHYLENE | ND | .5 | .2 |
| TOLUENE | ND | .5 | .2 |
| TRANS-1,2-DICHLOROETHENE | ND | .5 | .2 |
| TRANS-1,3-DICHLOROPROPENE | ND | .5 | .2 |
| TRICHLOROETHENE | ND | .5 | .2 |
| TRICHLOROFLUOROMETHANE | ND | .5 | .2 |
| VINYL CHLORIDE | ND | 10 | .5 |
| ACRYLONITRILE | ND | 10 | .5 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|-----------------------|------------|----------|
| 1,2-DICHLOROETHANE-D4 | 126 | 63-132 |
| TOLUENE-D8 | 97 | 75-122 |
| BROMOFLUOROBENZENE | 97 | 73-129 |

R.L. : Reporting limit
 * : Out of QC
 E : Exceeded calibration range
 B : Found in associated method blank
 J : Value between R.L. and MDL
 D : Value from dilution analysis
 D.O. : Diluted out

SW 50308/82608
 VOLATILE ORGANICS BY GC/MS

| | |
|-------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 03/30/04 |
| Project : MFA, CTD 71, SITE 1 | Date Received: 03/31/04 |
| Batch No. : 04C211 | Date Extracted: 04/01/04 13:27 |
| Sample ID: 71-S1-020 | Date Analyzed: 04/01/04 13:27 |
| Lab Samp ID: C211-07 | Dilution Factor: 1 |
| Lab File ID: RCB723 | Matrix : WATER |
| Ext Btch ID: V003C68 | % Moisture : NA |
| Calib. Ref.: RCB248 | Instrument ID : T-003 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 1,1,1,2-TETRACHLOROETHANE | ND | 5 | 2 |
| 1,1,1-TRICHLOROETHANE | ND | 5 | 2 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 5 | 2 |
| 1,1,2-TRICHLOROETHANE | ND | 5 | 2 |
| 1,1-DICHLOROETHANE | ND | 5 | 2 |
| 1,1-DICHLOROETHENE | ND | 5 | 2 |
| 1,1-DICHLOROPROPENE | ND | 5 | 2 |
| 1,2,3-TRICHLOROBENZENE | ND | 5 | 2 |
| 1,2,3-TRICHLOROPROPANE | ND | 5 | 2 |
| 1,2,4-TRICHLOROBENZENE | ND | 5 | 2 |
| 1,2,4-TRIMETHYLBENZENE | ND | 5 | 2 |
| 1,2-DIBROMO-3-CHLOROPROPANE | ND | 5 | 2 |
| 1,2-DICHLOROBENZENE | ND | 5 | 2 |
| 1,2-DICHLOROETHANE | ND | 5 | 2 |
| 1,2-DICHLOROPROPANE | ND | 5 | 2 |
| 1,2-ETHYLENEDIBROMIDE | ND | 5 | 2 |
| 1,3,5-TRIMETHYLBENZENE | ND | 5 | 2 |
| 1,3-DICHLOROBENZENE | ND | 5 | 2 |
| 1,3-DICHLOROPROPANE | ND | 5 | 2 |
| 1,4-DICHLOROBENZENE | ND | 5 | 2 |
| 2,2-DICHLOROPROPANE | ND | 5 | 2 |
| 2-BUTANONE | ND | 10 | 2 |
| 2-CHLOROTOLUENE | ND | 10 | 2 |
| 2-HEXANONE | ND | 10 | 2 |
| 4-CHLOROTOLUENE | ND | 10 | 2 |
| 4-METHYL-2-PENTANONE | ND | 10 | 2 |
| ACETONE | ND | 10 | 2 |
| BENZENE | ND | 5 | 2 |
| BROMOBENZENE | ND | 5 | 2 |
| BROMOCHLOROMETHANE | ND | 5 | 2 |
| BROMODICHLOROMETHANE | ND | 5 | 2 |
| BROMOFORM | ND | 5 | 2 |
| BROMOMETHANE | ND | 5 | 2 |
| CARBON DISULFIDE | ND | 5 | 2 |
| CARBON TETRACHLORIDE | ND | 5 | 2 |
| CHLOROBENZENE | ND | 5 | 2 |
| CHLOROETHANE | ND | 5 | 2 |
| CHLOROFORM | ND | 5 | 2 |
| CHLOROMETHANE | ND | 5 | 2 |
| CIS-1,2-DICHLOROETHENE | ND | 5 | 2 |
| CIS-1,3-DICHLOROPROPENE | ND | 5 | 2 |
| DIBROMOCHLOROMETHANE | ND | 5 | 2 |
| DIBROMOMETHANE | ND | 5 | 2 |
| DICHLORODIFLUOROMETHANE | ND | 5 | 2 |
| ETHYLBENZENE | ND | 5 | 2 |
| HEXACHLOROBUTADIENE | ND | 5 | 2 |
| ISOPROPYL BENZENE | ND | 5 | 2 |
| M/P-XYLENES | ND | 5 | 2 |
| METHYLENE CHLORIDE | ND | 5 | 2 |
| N-BUTYLBENZENE | ND | 5 | 2 |
| N-PROPYLBENZENE | ND | 5 | 2 |
| NAPHTHALENE | ND | 5 | 2 |
| O-XYLENE | ND | 5 | 2 |
| P-ISOPROPYLTOLUENE | ND | 5 | 2 |
| SEC-BUTYLBENZENE | ND | 5 | 2 |
| STYRENE | ND | 5 | 2 |
| TERT-BUTYLBENZENE | ND | 5 | 2 |
| TETRACHLOROETHYLENE | ND | 5 | 2 |
| TOLUENE | ND | 5 | 2 |
| TRANS-1,2-DICHLOROETHENE | ND | 5 | 2 |
| TRANS-1,3-DICHLOROPROPENE | ND | 5 | 2 |
| TRICHLOROETHENE | ND | 5 | 2 |
| TRICHLOROFLUOROMETHANE | ND | 5 | 2 |
| VINYL CHLORIDE | ND | 1 | 2 |
| ACRYLONITRILE | ND | 10 | 2 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|-----------------------|------------|----------|
| 1,2-DICHLOROETHANE-D4 | 128 | 63-132 |
| TOLUENE-D8 | 100 | 75-122 |
| BROMOFLUOROBENZENE | 98 | 73-129 |

R.L. : Reporting limit
 * : Out of QC
 E : Exceeded calibration range
 B : Found in associated method blank
 J : Value between R.L. and MDL
 D : Value from dilution analysis
 D.O. : Diluted out

2024

SW 50308/82608
 VOLATILE ORGANICS BY GC/MS

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Client       : TETRA TECH FW, INC.      Date Collected: 03/30/04
Project      : MFA, CTO 71, SITE 1     Date Received: 03/31/04
Batch No.    : 04C211                  Date Extracted: 04/01/04 14:06
Sample ID    : 71-S1-022                Date Analyzed: 04/01/04 14:06
Lab Samp ID  : C211-08                  Dilution Factor: 1
Lab File ID  : RC8724                   Matrix: WATER
Ext Btch ID  : V003C68                  % Moisture: NA
Calib. Ref.  : RC8248                   Instrument ID: T-003
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| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 1,1,1,2-TETRACHLOROETHANE | ND | .5 | .2 |
| 1,1,1-TRICHLOROETHANE | ND | .5 | .2 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 1 | .3 |
| 1,1,2-TRICHLOROETHANE | ND | .5 | .2 |
| 1,1-DICHLOROETHANE | ND | .5 | .2 |
| 1,1-DICHLOROETHENE | ND | .5 | .2 |
| 1,1-DICHLOROPROPENE | ND | .5 | .2 |
| 1,2,3-TRICHLOROBENZENE | ND | .5 | .2 |
| 1,2,3-TRICHLOROPROPANE | ND | .5 | .2 |
| 1,2,4-TRICHLOROBENZENE | ND | .5 | .2 |
| 1,2,4-TRIMETHYLBENZENE | ND | .5 | .2 |
| 1,2-DIBROMO-3-CHLOROPROPANE | ND | .5 | .2 |
| 1,2-DICHLOROBENZENE | ND | .5 | .2 |
| 1,2-DICHLOROETHANE | ND | .5 | .2 |
| 1,2-DICHLOROPROPANE | ND | .5 | .2 |
| 1,2-ETHYLENEDIBROMIDE | ND | .5 | .2 |
| 1,3,5-TRIMETHYLBENZENE | ND | .5 | .2 |
| 1,3-DICHLOROBENZENE | ND | .5 | .2 |
| 1,3-DICHLOROPROPANE | ND | .5 | .2 |
| 1,4-DICHLOROBENZENE | ND | .5 | .2 |
| 2,2-DICHLOROPROPANE | ND | .5 | .2 |
| 2-BUTANONE | ND | 10 | .1 |
| 2-CHLOROTOLUENE | ND | 10 | .1 |
| 2-HEXANONE | ND | 10 | .1 |
| 4-CHLOROTOLUENE | ND | 10 | .1 |
| 4-METHYL-2-PENTANONE | ND | 10 | .1 |
| ACETONE | ND | 10 | .1 |
| BENZENE | ND | .5 | .2 |
| BROMOBENZENE | ND | .5 | .2 |
| BROMOCHLOROMETHANE | ND | .5 | .2 |
| BROMODICHLOROMETHANE | ND | .5 | .2 |
| BROMOFORM | ND | .5 | .2 |
| BROMOMETHANE | ND | .5 | .2 |
| CARBON DISULFIDE | ND | .5 | .2 |
| CARBON TETRACHLORIDE | ND | .5 | .2 |
| CHLOROETHANE | ND | .5 | .2 |
| CHLOROETHENE | ND | .5 | .2 |
| CHLOROFORM | ND | .5 | .2 |
| CHLOROMETHANE | ND | .5 | .2 |
| CIS-1,2-DICHLOROETHENE | ND | .5 | .2 |
| CIS-1,3-DICHLOROPROPENE | ND | .5 | .2 |
| DIBROMOCHLOROMETHANE | ND | .5 | .2 |
| DIBROMOMETHANE | ND | .5 | .2 |
| DICHLORODIFLUOROMETHANE | ND | .5 | .2 |
| ETHYLBENZENE | ND | .5 | .2 |
| HEXACHLOROBUTADIENE | ND | .5 | .2 |
| ISOPROPYL BENZENE | ND | .5 | .2 |
| M/P-XYLENES | ND | .5 | .2 |
| METHYLENE CHLORIDE | ND | .5 | .2 |
| N-BUTYLBENZENE | ND | .5 | .2 |
| N-PROPYLBENZENE | ND | .5 | .2 |
| NAPHTHALENE | ND | .5 | .2 |
| O-XYLENE | ND | .5 | .2 |
| P-ISOPROPYLTOLUENE | ND | .5 | .2 |
| SEC-BUTYLBENZENE | ND | .5 | .2 |
| STYRENE | ND | .5 | .2 |
| TERT-BUTYLBENZENE | ND | .5 | .2 |
| TETRACHLOROETHYLENE | ND | .5 | .2 |
| TOLUENE | ND | .5 | .2 |
| TRANS-1,2-DICHLOROETHENE | ND | .5 | .2 |
| TRANS-1,3-DICHLOROPROPENE | ND | .5 | .2 |
| TRICHLOROETHENE | ND | .5 | .2 |
| TRICHLOROFLUOROMETHANE | ND | .5 | .2 |
| VINYL CHLORIDE | ND | 10 | .1 |
| ACRYLONITRILE | ND | 10 | .1 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|-----------------------|------------|----------|
| 1,2-DICHLOROETHANE-D4 | 127 | 63-132 |
| TOLUENE-D8 | 107 | 75-125 |
| BROMOFLUOROBENZENE | 98 | 73-129 |

R.L. : Reporting limit
 * : Out of QC
 E : Exceeded calibration range
 B : Found in associated method blank
 J : Value between R.L. and MDL
 D : Value from dilution analysis
 D.O. : Diluted out

CASE NARRATIVE**CLIENT: TETRA TECH FW, INC.****PROJECT: MFA, CTO 71, SITE 1****SDG: 04C211****SW3520C/8081A
PESTICIDES**

Seven (7) water samples were received on 03/31/04 for Pesticides analysis by Method 3520C/8081A in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW846, 3rd ed.

1. Holding Time

Analytical holding time was met.

2. Instrument Performance and Calibration

Initial calibration was at five-point for Pesticides, all RSDs were within 20%. All continue calibrations were analyzed at 12-hour interval and mean recoveries were within 85-115%. Endrin and DDT breakdown were within QC limits.

3. Method Blank

Method blank was free of contamination at the reporting limit.

4. Surrogate Recovery

Recoveries were within QC limit.

5. Lab Control Sample

All recoveries were within QC limits.

6. Matrix Spike/Matrix Spike Duplicate

Sample C211-03 was spiked. All recoveries were within QC limit.

7. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criteria were met.

SW3520C/8081A
 PESTICIDES

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=====
Client   : TETRA TECH FW, INC.      Date Collected: 03/29/04
Project  : MFA, CTO 71, SITE 1      Date Received: 03/31/04
Batch No. : 04C211                  Date Extracted: 04/01/04 17:00
Sample ID: 71-s1-017                Date Analyzed: 04/02/04 16:27
Lab Samp ID: C211-02                Dilution Factor: .94
Lab File ID: SD02011A               Matrix       : WATER
Ext Btch ID: CPD002W                % Moisture    : NA
Calib. Ref.: SD02003A               Instrument ID : GCT008
=====
  
```

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---------------------|-------------------|--------------|---------------|
| ALPHA-BHC | (ND) ND | .047 | .0094 |
| GAMMA-BHC (LINDANE) | (ND) ND | .047 | .0094 |
| BETA-BHC | (ND) .029J | .047 | .0094 |
| HEPTACHLOR | (ND) ND | .047 | .0094 |
| DELTA-BHC | (ND) ND | .047 | .0094 |
| ALDRIN | (ND) ND | .047 | .0094 |
| HEPTACHLOR EPOXIDE | (ND) ND | .047 | .0094 |
| GAMMA-CHLORDANE | (ND) ND | .047 | .0094 |
| ALPHA-CHLORDANE | (ND) ND | .047 | .0094 |
| ENDOSULFAN I | (ND) ND | .047 | .028 |
| 4,4'-DDE | (ND) ND | .094 | .028 |
| DIELDRIN | (ND) ND | .094 | .019 |
| ENDRIN | (ND) ND | .094 | .019 |
| 4,4'-DDD | (ND) ND | .094 | .028 |
| ENDOSULFAN II | (ND) ND | .094 | .019 |
| 4,4'-DDT | (ND) ND | .094 | .019 |
| ENDRIN ALDEHYDE | (ND) ND | .094 | .019 |
| ENDOSULFAN SULFATE | (ND) ND | .094 | .019 |
| ENDRIN KETONE | (ND) ND | .094 | .019 |
| METHOXYCHLOR | (ND) ND | .47 | .094 |
| TOXAPHENE | (ND) ND | 2.8 | 1.2 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| TETRACHLORO-M-XYLENE | 70 (102) | 20-145 |
| DECACHLOROBIPHENYL | 77 (81) | 20-165 |

RL : Reporting limit
 Left of | is related to first column ; Right of | related to second column
 () included the reported column

SW3520C/8081A
PESTICIDES

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=====
Client       : TETRA TECH FW, INC.      Date Collected: 03/29/04
Project      : MFA, CTO 71, SITE 1     Date Received: 03/31/04
Batch No.    : 04C211                  Date Extracted: 04/01/04 17:00
Sample ID    : 71-S1-018               Date Analyzed: 04/02/04 16:52
Lab Samp ID  : C211-03                 Dilution Factor: .94
Lab File ID  : SD02012A                Matrix       : WATER
Ext Btch ID  : CPD002W                 % Moisture    : NA
Calib. Ref.  : SD02003A                Instrument ID : GCT008
=====
  
```

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|----------------------|-------------------|--------------|---------------|
| ALPHA-BHC | .039J (ND) | .047 | .0094 |
| GAMMA-BHC (LINDANE) | (ND) ND | .047 | .0094 |
| BETA-BHC | (ND) .064 | .047 | .0094 |
| HEPTACHLOR | (ND) ND | .047 | .0094 |
| DELTA-BHC | .01J (ND) | .047 | .0094 |
| ALDRIN | (ND) ND | .047 | .0094 |
| HEPTACHLOR EPOXIDE | (ND) .029J | .047 | .0094 |
| GAMMA-CHLORDANE | (ND) ND | .047 | .0094 |
| ALPHA-CHLORDANE | (ND) ND | .047 | .0094 |
| ENDOSULFAN I | (ND) ND | .047 | .028 |
| 4,4'-DDE | (ND) ND | .094 | .028 |
| DIELDRIN | (ND) ND | .094 | .019 |
| ENDRIN | (ND) ND | .094 | .019 |
| 4,4'-DDD | (ND) ND | .094 | .028 |
| ENDOSULFAN II | (ND) ND | .094 | .019 |
| 4,4'-DDT | (ND) ND | .094 | .019 |
| ENDRIN ALDEHYDE | (ND) ND | .094 | .019 |
| ENDOSULFAN SULFATE | (ND) ND | .094 | .019 |
| ENDRIN KETONE | (ND) ND | .094 | .019 |
| METHOXYCHLOR | (ND) ND | .47 | .094 |
| TOXAPHENE | (ND) ND | 2.8 | 1.2 |
| | | | |
| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT | |
| TETRACHLORO-M-XYLENE | 85 (94) | 20-145 | |
| DECACHLOROBIPHENYL | 77 (82) | 20-165 | |

RL : Reporting limit
 Left of | is related to first column ; Right of | related to second column
 () included the reported column

SW3520C/8081A
 PESTICIDES

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=====
Client      : TETRA TECH FW, INC.      Date Collected: 03/29/04
Project     : MFA, CTO 71, SITE 1      Date Received: 03/31/04
Batch No.   : 04C211                   Date Extracted: 04/01/04 17:00
Sample ID   : 71-S1-023                 Date Analyzed: 04/02/04 18:58
Lab Samp ID : C211-04                   Dilution Factor: 1
Lab File ID : SD02017A                  Matrix          : WATER
Ext Btch ID : CPD002W                   % Moisture       : NA
Calib. Ref. : SD02003A                  Instrument ID    : GCT008
=====
  
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| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|----------------------|-------------------|--------------|---------------|
| ALPHA-BHC | (ND) ND | .05 | .01 .01 |
| GAMMA-BHC (LINDANE) | (ND) ND | .05 | .01 .01 |
| BETA-BHC | (ND) .028J | .05 | .01 .01 |
| HEPTACHLOR | .012J (ND) | .05 | .01 .01 |
| DELTA-BHC | (ND) ND | .05 | .01 .01 |
| ALDRIN | (ND) ND | .05 | .01 .01 |
| HEPTACHLOR EPOXIDE | (ND) ND | .05 | .01 .01 |
| GAMMA-CHLORDANE | (ND) ND | .05 | .01 .01 |
| ALPHA-CHLORDANE | (ND) ND | .05 | .01 .01 |
| ENDOSULFAN I | (ND) ND | .05 | .03 .03 |
| 4,4'-DDE | (ND) ND | .1 | .03 .03 |
| DIELDRIN | (ND) ND | .1 | .02 .02 |
| ENDRIN | (ND) ND | .1 | .02 .02 |
| 4,4'-DDD | (ND) ND | .1 | .03 .03 |
| ENDOSULFAN II | (ND) ND | .1 | .02 .02 |
| 4,4'-DDT | (ND) ND | .1 | .02 .02 |
| ENDRIN ALDEHYDE | (ND) ND | .1 | .02 .02 |
| ENDOSULFAN SULFATE | (ND) ND | .1 | .02 .02 |
| ENDRIN KETONE | (ND) ND | .1 | .02 .02 |
| METHOXYCHLOR | (ND) ND | .5 | .1 .1 |
| TOXAPHENE | (ND) ND | 3 | 1.2 1.2 |
| | | | |
| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT | |
| TETRACHLORO-M-XYLENE | (80) 80 | 20-145 | |
| DECACHLOROBIPHENYL | 76 (81) | 20-165 | |

RL : Reporting limit
 Left of | is related to first column ; Right of | related to second column
 () included the reported column

SW3520C/8081A
PESTICIDES

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=====
Client      : TETRA TECH FW, INC.      Date Collected: 03/29/04
Project     : MFA, CTO 71, SITE 1     Date Received: 03/31/04
Batch No.   : 04C211                  Date Extracted: 04/01/04 17:00
Sample ID: 71-S1-024                 Date Analyzed: 04/02/04 19:24
Lab Samp ID: C211-05                 Dilution Factor: .94
Lab File ID: SD02018A                Matrix      : WATER
Ext Btch ID: CPD002W                 % Moisture   : NA
Calib. Ref.: SD02003A                Instrument ID: GCT008
=====

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| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---------------------|-------------------|--------------|---------------|
| ALPHA-BHC | .098 (.033J) | .047 | .0094 |
| GAMMA-BHC (LINDANE) | .024J (ND) | .047 | .0094 |
| BETA-BHC | (ND) .052 | .047 | .0094 |
| HEPTACHLOR | .22 (ND) | .047 | .0094 |
| DELTA-BHC | (ND) .024J | .047 | .0094 |
| ALDRIN | .097 (ND) | .047 | .0094 |
| HEPTACHLOR EPOXIDE | (ND) ND | .047 | .0094 |
| GAMMA-CHLORDANE | .056 (ND) | .047 | .0094 |
| ALPHA-CHLORDANE | .018J (ND) | .047 | .0094 |
| ENDOSULFAN I | (ND) .038J | .047 | .028 |
| 4,4'-DDE | .082J (ND) | .094 | .028 |
| DIELDRIN | .034J (.05J) | .094 | .019 |
| ENDRIN | (ND) ND | .094 | .019 |
| 4,4'-DDD | (.039J) .029J | .094 | .028 |
| ENDOSULFAN II | (ND) ND | .094 | .019 |
| 4,4'-DDT | .21 (ND) | .094 | .019 |
| ENDRIN ALDEHYDE | (ND) ND | .094 | .019 |
| ENDOSULFAN SULFATE | (ND) ND | .094 | .019 |
| ENDRIN KETONE | .034J (ND) | .094 | .019 |
| METHOXYCHLOR | .19J (ND) | .47 | .094 |
| TOXAPHENE | (ND) ND | 2.8 | 1.2 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| TETRACHLORO-M-XYLENE | 182* (80) | 20-145 |
| DECACHLOROBIPHENYL | 75 (155) | 20-165 |

RL : Reporting limit
Left of | is related to first column ; Right of | related to second column
() included the reported column

SW3520C/8081A
 PESTICIDES

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=====
Client      : TETRA TECH FW, INC.      Date Collected: 03/30/04
Project     : MFA, CTO 71, SITE 1     Date Received: 03/31/04
Batch No.   : 04C211                  Date Extracted: 04/01/04 17:00
Sample ID   : 71-S1-019               Date Analyzed: 04/02/04 19:49
Lab Samp ID : C211-06                  Dilution Factor: .94
Lab File ID : SD02019A                 Matrix          : WATER
Ext Btch ID : CPD002W                  % Moisture       : NA
Calib. Ref. : SD02003A                 Instrument ID    : GCT008
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| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---------------------|-------------------|--------------|---------------|
| ALPHA-BHC | (ND) ND | .047 | .0094 |
| GAMMA-BHC (LINDANE) | (ND) ND | .047 | .0094 |
| BETA-BHC | (ND) .034J | .047 | .0094 |
| HEPTACHLOR | .01J (.013J) | .047 | .0094 |
| DELTA-BHC | .016J (ND) | .047 | .0094 |
| ALDRIN | (ND) ND | .047 | .0094 |
| HEPTACHLOR EPOXIDE | (ND) ND | .047 | .0094 |
| GAMMA-CHLORDANE | (ND) ND | .047 | .0094 |
| ALPHA-CHLORDANE | (ND) ND | .047 | .0094 |
| ENDOSULFAN I | (ND) ND | .047 | .028 |
| 4,4'-DDE | (ND) ND | .094 | .028 |
| DIELDRIN | (ND) ND | .094 | .019 |
| ENDRIN | (ND) ND | .094 | .019 |
| 4,4'-DDD | (ND) ND | .094 | .028 |
| ENDOSULFAN II | (ND) ND | .094 | .019 |
| 4,4'-DDT | (ND) ND | .094 | .019 |
| ENDRIN ALDEHYDE | (ND) ND | .094 | .019 |
| ENDOSULFAN SULFATE | (ND) ND | .094 | .019 |
| ENDRIN KETONE | (ND) ND | .094 | .019 |
| METHOXYCHLOR | (ND) ND | .47 | .094 |
| TOXAPHENE | (ND) ND | 2.8 | 1.2 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| TETRACHLORO-M-XYLENE | 66 (71) | 20-145 |
| DECACHLOROBIPHENYL | 76 (80) | 20-165 |

RL : Reporting limit
 Left of } is related to first column ; Right of | related to second column
 () included the reported column

SW3520C/8081A
 PESTICIDES

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=====
Client       : TETRA TECH FW, INC.      Date Collected: 03/30/04
Project      : MFA, CTO 71, SITE 1     Date Received: 03/31/04
Batch No.    : 04C211                  Date Extracted: 04/01/04 17:00
Sample ID    : 71-S1-020               Date Analyzed: 04/02/04 20:14
Lab Samp ID  : C211-07                 Dilution Factor: .94
Lab File ID  : SD0202DA                Matrix       : WATER
Ext Btch ID  : CPD002W                 % Moisture   : NA
Calib. Ref. : SD02003A                Instrument ID : GCT008
=====
  
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| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---------------------|-------------------|--------------|---------------|
| ALPHA-BHC | (ND) ND | .047 | .0094 |
| GAMMA-BHC (LINDANE) | (ND) ND | .047 | .0094 |
| BETA-BHC | (ND) .019J | .047 | .0094 |
| HEPTACHLOR | (ND) ND | .047 | .0094 |
| DELTA-BHC | (ND) ND | .047 | .0094 |
| ALDRIN | (ND) ND | .047 | .0094 |
| HEPTACHLOR EPOXIDE | (ND) ND | .047 | .0094 |
| GAMMA-CHLORDANE | (ND) ND | .047 | .0094 |
| ALPHA-CHLORDANE | (ND) ND | .047 | .0094 |
| ENDOSULFAN I | (ND) ND | .047 | .028 |
| 4,4'-DDE | (ND) ND | .094 | .028 |
| DIELDRIN | (ND) ND | .094 | .019 |
| ENDRIN | (ND) ND | .094 | .019 |
| 4,4'-DDD | (ND) ND | .094 | .028 |
| ENDOSULFAN II | (ND) ND | .094 | .019 |
| 4,4'-DDT | (ND) ND | .094 | .019 |
| ENDRIN ALDEHYDE | (ND) ND | .094 | .019 |
| ENDOSULFAN SULFATE | (ND) ND | .094 | .019 |
| ENDRIN KETONE | (ND) ND | .094 | .019 |
| METHOXYCHLOR | (ND) ND | .47 | .094 |
| TOXAPHENE | (ND) ND | 2.8 | 1.2 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| TETRACHLORO-M-XYLENE | 67 (76) | 20-145 |
| DECACHLOROBIPHENYL | 76 (81) | 20-165 |

RL : Reporting limit
 Left of { is related to first column ; Right of | related to second column
 () included the reported column

SW3520C/8081A
 PESTICIDES

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=====
Client       : TETRA TECH FW, INC.      Date Collected: 03/30/04
Project      : MFA, CTO 71, SITE 1     Date Received: 03/31/04
Batch No.    : 04C211                  Date Extracted: 04/01/04 17:00
Sample ID    : 71-S1-022               Date Analyzed: 04/02/04 20:39
Lab Samp ID  : C211-08                 Dilution Factor: .94
Lab File ID  : SD02021A                Matrix       : WATER
Ext Btch ID  : CP0002W                 % Moisture    : NA
Calib. Ref.  : SD02003A                Instrument ID : GCT008
=====
  
```

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---------------------|-------------------|--------------|---------------|
| ALPHA-BHC | (ND) ND | .047 | .0094 .0094 |
| GAMMA-BHC (LINDANE) | (ND) ND | .047 | .0094 .0094 |
| BETA-BHC | (ND) .035J | .047 | .0094 .0094 |
| HEPTACHLOR | (ND) ND | .047 | .0094 .0094 |
| DELTA-BHC | .016J (ND) | .047 | .0094 .0094 |
| ALDRIN | (ND) ND | .047 | .0094 .0094 |
| HEPTACHLOR EPOXIDE | (ND) ND | .047 | .0094 .0094 |
| GAMMA-CHLORDANE | (ND) ND | .047 | .0094 .0094 |
| ALPHA-CHLORDANE | (ND) ND | .047 | .0094 .0094 |
| ENDOSULFAN I | (ND) ND | .047 | .028 .028 |
| 4,4'-DDE | (ND) ND | .094 | .028 .028 |
| DIELDRIN | (ND) ND | .094 | .019 .019 |
| ENDRIN | (ND) ND | .094 | .019 .019 |
| 4,4'-DDD | (ND) ND | .094 | .028 .028 |
| ENDOSULFAN II | (ND) ND | .094 | .019 .019 |
| 4,4'-DDT | (ND) ND | .094 | .019 .019 |
| ENDRIN ALDEHYDE | (ND) ND | .094 | .019 .019 |
| ENDOSULFAN SULFATE | (ND) ND | .094 | .019 .019 |
| ENDRIN KETONE | (ND) ND | .094 | .019 .019 |
| METHOXYCHLOR | (ND) ND | .47 | .094 .094 |
| TOXAPHENE | (ND) ND | 2.8 | 1.2 1.2 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| TETRACHLORO-M-XYLENE | 97 (101) | 20-145 |
| DECACHLOROBIPHENYL | 80 (84) | 20-165 |

RL : Reporting limit
 Left of | is related to first column ; Right of | related to second column
 () included the reported column

CASE NARRATIVE**CLIENT: TETRA TECH FW, INC.****PROJECT: MFA, CTO 71, SITE 1****SDG: 04C211****SW3520C/8082
PCBs**

Seven (7) water samples were received on 03/31/04 for PCBs analysis by Method 3520C/8082 in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW846, 3rd ed.

1. Holding Time

Analytical holding time was met.

2. Instrument Performance and Calibration

Initial calibration was five-point for PCB-1016 and PCB-1260, all RSDs were within 20%. All continue calibrations were analyzed at 12 hour interval and all recoveries were within 85-115%.

3. Method Blank

Method blank was free of contamination at the reporting limit.

4. Surrogate Recovery

Recoveries were within QC limit.

5. Lab Control Sample

All recoveries were within QC limits.

6. Matrix Spike/Matrix Spike Duplicate

Sample C211-03 was spiked. All recoveries were within QC limit.

7. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criteria were met.

SW3520C/8082
 PCBs

```

=====
Client       : TETRA TECH FW, INC.      Date Collected: 03/29/04
Project      : MFA, CTO 71, SITE 1     Date Received: 03/31/04
Batch No.    : 04C211                  Date Extracted: 04/01/04 17:00
Sample ID    : 71-S1-017               Date Analyzed: 04/02/04 16:27
Lab Samp ID  : C211-02                 Dilution Factor: .94
Lab File ID  : SD02011A                Matrix          : WATER
Ext Btch ID  : CPD002W                 % Moisture       : NA
Calib. Ref.  : SD02006A                Instrument ID    : GCT008
=====
  
```

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|------------|-------------------|--------------|---------------|
| PCB-1016 | (ND) ND | .94 | .24 .24 |
| PCB-1221 | (ND) ND | .94 | .24 .24 |
| PCB-1232 | (ND) ND | .94 | .24 .24 |
| PCB-1242 | (ND) ND | 1.9 | .24 .24 |
| PCB-1248 | (ND) ND | .94 | .24 .24 |
| PCB-1254 | (ND) ND | .94 | .24 .24 |
| PCB-1260 | (ND) ND | .94 | .24 .24 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| TETRACHLORO-M-XYLENE | (57) 69 | 20-145 |
| DECACHLOROBIPHENYL | (100) 105 | 20-165 |

RL: Reporting Limit
 Left of | is related to first column ; Right of | related to second column
 () included the reported column
 * Out side of QC Limit

SW3520C/8082
PCBs

```

=====
Client      : TETRA TECH FW, INC.      Date Collected: 03/29/04
Project     : MFA, CTO 71, SITE 1      Date Received: 03/31/04
Batch No.   : 04C211                  Date Extracted: 04/01/04 17:00
Sample ID   : 71-S1-018                Date Analyzed: 04/02/04 16:52
Lab Samp ID : C211-03                  Dilution Factor: .94
Lab File ID : SD02012A                 Matrix          : WATER
Ext Btch ID : CPD002W                  % Moisture       : NA
Calib. Ref. : SD02006A                 Instrument ID    : GCT008
=====
  
```

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|------------|-------------------|--------------|---------------|
| PCB-1016 | (ND) ND | .94 | .24 .24 |
| PCB-1221 | (ND) ND | .94 | .24 .24 |
| PCB-1232 | (ND) ND | .94 | .24 .24 |
| PCB-1242 | (ND) ND | 1.9 | .24 .24 |
| PCB-1248 | (ND) ND | .94 | .24 .24 |
| PCB-1254 | (ND) ND | .94 | .24 .24 |
| PCB-1260 | (ND) ND | .94 | .24 .24 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|-------------|----------|
| TETRACHLORO-M-XYLENE | (73) 115 | 20-145 |
| DECACHLOROBIPHENYL | (105) 105 | 20-165 |

RL: Reporting Limit
 Left of | is related to first column ; Right of | related to second column
 () included the reported column
 * Out side of QC Limit

SW3520C/8082
PCBs

```

=====
Client       : TETRA TECH FW, INC.      Date Collected: 03/29/04
Project      : MFA, CTO 71, SITE 1     Date Received: 03/31/04
Batch No.    : 04C211                  Date Extracted: 04/01/04 17:00
Sample ID    : 71-S1-023               Date Analyzed: 04/02/04 18:58
Lab Samp ID  : C211-04                 Dilution Factor: 1
Lab File ID  : SD02017A                Matrix       : WATER
Ext Btch ID  : CPD002W                 % Moisture    : NA
Calib. Ref.  : SD02006A                Instrument ID : GCT008
=====
  
```

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|------------|-------------------|--------------|---------------|
| PCB-1016 | (ND) ND | 1 | .25 .25 |
| PCB-1221 | (ND) ND | 1 | .25 .25 |
| PCB-1232 | (ND) ND | 1 | .25 .25 |
| PCB-1242 | (ND) ND | 2 | .25 .25 |
| PCB-1248 | (ND) ND | 1 | .25 .25 |
| PCB-1254 | (ND) ND | 1 | .25 .25 |
| PCB-1260 | (ND) ND | 1 | .25 .25 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| TETRACHLORO-M-XYLENE | (60) 75 | 20-145 |
| DECACHLOROBIPHENYL | (103) 105 | 20-165 |

RL: Reporting Limit
 Left of | is related to first column ; Right of | related to second column
 () included the reported column
 * Out side of QC Limit

SW3520C/8082
 PCBs

```

=====
Client       : TETRA TECH FW, INC.      Date Collected: 03/29/04
Project      : MFA, CTO 71, SITE 1     Date Received: 03/31/04
Batch No.    : 04C211                  Date Extracted: 04/01/04 17:00
Sample ID    : 71-S1-024               Date Analyzed: 04/02/04 19:24
Lab Samp ID  : C211-05                 Dilution Factor: .94
Lab File ID  : SD02018A                Matrix       : WATER
Ext Btch ID  : CPD002W                 % Moisture    : NA
Calib. Ref.: SD02006A                 Instrument ID : GCT008
=====
  
```

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|------------|-------------------|--------------|---------------|
| PCB-1016 | (ND) ND | .94 | .24 .24 |
| PCB-1221 | (ND) ND | .94 | .24 .24 |
| PCB-1232 | (ND) ND | .94 | .24 .24 |
| PCB-1242 | (ND) ND | 1.9 | .24 .24 |
| PCB-1248 | (ND) ND | .94 | .24 .24 |
| PCB-1254 | (ND) ND | .94 | .24 .24 |
| PCB-1260 | (ND) ND | .94 | .24 .24 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| TETRACHLORD-M-XYLENE | (92) 74 | 20-145 |
| DECACHLOROBIPHENYL | (81) 152 | 20-165 |

RL: Reporting Limit
 Left of | is related to first column ; Right of | related to second column
 () included the reported column
 * Out side of QC Limit

SW3520C/8082
PCBs

```

=====
Client       : TETRA TECH FW, INC.      Date Collected: 03/30/04
Project      : MFA, CTO 71, SITE 1      Date Received: 03/31/04
Batch No.    : 04C211                   Date Extracted: 04/01/04 17:00
Sample ID    : 71-S1-019                 Date Analyzed: 04/02/04 19:49
Lab Samp ID  : C211-06                   Dilution Factor: .94
Lab File ID  : SD02019A                  Matrix          : WATER
Ext Btch ID  : CPD002W                   % Moisture       : NA
Calib. Ref.  : SDD2006A                  Instrument ID    : GCT008
=====
  
```

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|------------|-------------------|--------------|---------------|
| PCB-1016 | (ND) ND | .94 | .24 .24 |
| PCB-1221 | (ND) ND | .94 | .24 .24 |
| PCB-1232 | (ND) ND | .94 | .24 .24 |
| PCB-1242 | (ND) ND | 1.9 | .24 .24 |
| PCB-1248 | (ND) ND | .94 | .24 .24 |
| PCB-1254 | (ND) ND | .94 | .24 .24 |
| PCB-1260 | (ND) ND | .94 | .24 .24 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| TETRACHLORO-M-XYLENE | (54) 69 | 20-145 |
| DECACHLOROBIPHENYL | (103) 103 | 20-165 |

RL: Reporting Limit
 Left of | is related to first column ; Right of | related to second column
 () included the reported column
 * Out side of QC Limit

SW3520C/8082
 PCBs

```

=====
Client       : TETRA TECH FW, INC.      Date Collected: 03/30/04
Project      : MFA, CTO 71, SITE 1     Date Received: 03/31/04
Batch No.    : 04C211                  Date Extracted: 04/01/04 17:00
Sample ID    : 71-S1-020               Date Analyzed: 04/02/04 20:14
Lab Samp ID  : C211-07                 Dilution Factor: .94
Lab File ID  : SD02020A                Matrix          : WATER
Ext Btch ID  : CPD002W                 % Moisture       : NA
Calib. Ref.  : SD02006A                Instrument ID    : GCT008
=====
  
```

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|------------|-------------------|--------------|---------------|
| PCB-1016 | (ND) ND | .94 | .24 .24 |
| PCB-1221 | (ND) ND | .94 | .24 .24 |
| PCB-1232 | (ND) ND | .94 | .24 .24 |
| PCB-1242 | (ND) ND | 1.9 | .24 .24 |
| PCB-1248 | (ND) ND | .94 | .24 .24 |
| PCB-1254 | (ND) ND | .94 | .24 .24 |
| PCB-1260 | (ND) ND | .94 | .24 .24 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|-------------|----------|
| TETRACHLORO-M-XYLENE | (55) 69 | 20-145 |
| DECACHLOROBIPHENYL | (102) 104 | 20-165 |

RL: Reporting Limit
 Left of | is related to first column ; Right of | related to second column
 () included the reported column
 * Out side of QC Limit

SW3520C/8082
 PCBs

```

=====
Client       : TETRA TECH FW, INC.      Date Collected: 03/30/04
Project      : MFA, CTO 71, SITE 1     Date Received: 03/31/04
Batch No.    : 04C211                  Date Extracted: 04/01/04 17:00
Sample ID    : 71-S1-022               Date Analyzed: 04/02/04 20:39
Lab Samp ID  : C211-08                 Dilution Factor: .94
Lab File ID  : SD02021A                Matrix          : WATER
Ext Btch ID  : CPD002W                 % Moisture       : NA
Calib. Ref.  : SD02006A                Instrument ID    : GCT008
=====
  
```

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|------------|-------------------|--------------|---------------|
| PCB-1016 | (ND) ND | .94 | .24 .24 |
| PCB-1221 | (ND) ND | .94 | .24 .24 |
| PCB-1232 | (ND) ND | .94 | .24 .24 |
| PCB-1242 | (ND) ND | 1.9 | .24 .24 |
| PCB-1248 | (ND) ND | .94 | .24 .24 |
| PCB-1254 | (ND) ND | .94 | .24 .24 |
| PCB-1260 | (ND) ND | .94 | .24 .24 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| TETRACHLORO-M-XYLENE | (80) 97 | 20-145 |
| DECACHLOROBIPHENYL | (108) 109 | 20-165 |

RL: Reporting Limit
 Left of | is related to first column ; Right of | related to second column
 () included the reported column
 * Out side of QC Limit

5149

CASE NARRATIVE

CLIENT: TETRA TECH FW, INC.
PROJECT: MFA, CTO 71, SITE 1
SDG: 04C211

METHOD 3010A/6010B
TOTAL AND DISSOLVED METALS BY ICP

Seven (7) water samples were received on 03/31/04 for Total and Dissolved Metals analysis by Method 3010A/6010B in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW846, 3rd edition.

1. Holding Time

Analysis met holding time criteria.

2. Method Blank

Method blank was free of contamination at the reporting limit.

3. Lab Control Sample/Lab Control Sample Duplicate

Lab control results were within QC limit.

4. Serial Dilution / Post-Analytical Spike

Sample C211-03 (Total and Dissolved) were analyzed for serial dilution and post-analytical spike. All QC requirements were met.

5. Matrix Spike/Matrix Spike Duplicate

Samples C211-03 (Total and Dissolved) were spiked. All recoveries were within QC limit except Manganese in MS/MSD of C211-03 (Dissolved) and Iron in MSD of C211-03 (Dissolved) were out the limit. All cations (Ca, K, Mg and Na) in both MS/MSD could not be evaluated since the parent samples concentration were relatively high (>4x) to spiking level.

6. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criteria were met with the aforementioned exception.

All samples were analyzed at DF20 for regular ICP and at DF10 for Trace ICP due to matrix interference from high sodium concentration.

METHOD 3010A/6010B
 METALS BY ICP

| | |
|-------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 03/29/04 |
| Project : MFA, CTO 71, SITE 1 | Date Received: 03/31/04 |
| SDG NO. : 04C211 | Date Extracted: 04/06/04 08:45 |
| Sample ID: 71-S1-017 | Date Analyzed: 04/13/04 20:49 |
| Lab Samp ID: C211-02 | Dilution Factor: 20 |
| Lab File ID: I070023026 | Matrix : WATER |
| Ext Btch ID: IPD012W | % Moisture : NA |
| Calib. Ref.: I070023020 | Instrument ID : EMAXI07 |

| PARAMETERS | RESULTS (mg/L) | RL (mg/L) | MDL (mg/L) |
|------------|-------------------|--------------|---------------|
| Aluminum | ND | 4 | 1.2 |
| Antimony | ND | 2 | .8 |
| Barium | .0696J | .2 | .04 |
| Beryllium | ND | .2 | .02 |
| Cadmium | ND | .2 | .04 |
| Calcium | 503 | 20 | 2 |
| Chromium | ND | .4 | .1 |
| Cobalt | ND | .4 | .1 |
| Copper | ND | .2 | .1 |
| Iron | ND | 20 | .6 |
| Magnesium | 1900 | 20 | 2 |
| Manganese | 5.95 | 2 | .06 |
| Nickel | ND | .4 | .2 |
| Potassium | 493 | 100 | 20 |
| Silver | ND | .4 | .1 |
| Sodium | 14900 | 20 | .5 |
| Vanadium | ND | .2 | .1 |
| Zinc | ND | .4 | .1 |

RL: Reporting Limit

7004

METHOD 3010A/60108
METALS BY TRACE ICP

| | | | |
|--------------|-----------------------|------------------|----------------|
| Client | : TETRA TECH FW, INC. | Date Collected: | 03/29/04 |
| Project | : MFA, CTO 71, SITE 1 | Date Received: | 03/31/04 |
| SDG NO. | : 04C211 | Date Extracted: | 04/06/04 08:45 |
| Sample ID: | 71:S1-017 | Date Analyzed: | 04/26/04 12:14 |
| Lab Samp ID: | C211-02 | Dilution Factor: | 10 |
| Lab File ID: | I31D048026 | Matrix | : WATER |
| Ext Btch ID: | IP0012W | % Moisture | : NA |
| Calib. Ref.: | I31D048020 | Instrument ID | : EMAXT131 |

| PARAMETERS | RESULTS (mg/L) | RL (mg/L) | MDL (mg/L) |
|------------|-------------------|--------------|---------------|
| Arsenic | ND | .1 | .04 |
| Lead | ND | .1 | .02 |
| Selenium | .0523J | .1 | .05 |
| Thallium | ND | .1 | .05 |

RL: Reporting Limit

METHOD 3010A/6010B
 METALS BY ICP

| | |
|-------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 03/29/04 |
| Project : MFA, CTO 71, SITE 1 | Date Received: 03/31/04 |
| SDG NO. : 04C211 | Date Extracted: 04/06/04 08:45 |
| Sample ID: 71-S1-018 | Date Analyzed: 04/13/04 20:53 |
| Lab Samp ID: C211-03 | Dilution Factor: 20 |
| Lab File ID: I07D023027 | Matrix : WATER |
| Ext Btch ID: IPD012W | % Moisture : NA |
| Calib. Ref.: I07D023020 | Instrument ID : EMAXT107 |

| PARAMETERS | RESULTS (mg/L) | RL (mg/L) | MDL (mg/L) |
|------------|-------------------|--------------|---------------|
| Aluminum | ND | 4 | 1.2 |
| Antimony | ND | 2 | .8 |
| Barium | .148J | .2 | .04 |
| Beryllium | ND | .2 | .02 |
| Cadmium | ND | .2 | .04 |
| Calcium | 541 | 20 | 2 |
| Chromium | ND | .4 | .1 |
| Cobalt | ND | .4 | .1 |
| Copper | ND | .2 | .1 |
| Iron | 20J | 20 | .6 |
| Magnesium | 1830 | 20 | 2 |
| Manganese | 1.97J | 2 | .06 |
| Nickel | ND | .4 | .2 |
| Potassium | 485 | 100 | 20 |
| Silver | ND | .4 | .1 |
| Sodium | 14000 | 20 | .5 |
| Vanadium | ND | .2 | .1 |
| Zinc | ND | .4 | .1 |

RL: Reporting Limit

METHOD 3010A/6010B
METALS BY TRACE ICP

| | |
|-------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 03/29/04 |
| Project : MFA, CTO 71, SITE 1 | Date Received: 03/31/04 |
| SDG NO. : 04C211 | Date Extracted: 04/06/04 08:45 |
| Sample ID: 71-S1-018 | Date Analyzed: 04/26/04 12:19 |
| Lab Samp ID: C211-03 | Dilution Factor: 10 |
| Lab File ID: I31D048027 | Matrix : WATER |
| Ext Btch ID: IPD012W | % Moisture : NA |
| Calib. Ref.: I31D048020 | Instrument ID : EMAXTI31 |

| PARAMETERS | RESULTS (mg/L) | RL (mg/L) | MDL (mg/L) |
|------------|-------------------|--------------|---------------|
| Arsenic | ND | .1 | .04 |
| Lead | ND | .1 | .02 |
| Selenium | ND | .1 | .05 |
| Thallium | ND | .1 | .05 |

RL: Reporting Limit

METHOD 3010A/6010B
METALS BY ICP

| | |
|-------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 03/29/04 |
| Project : MFA, CTO 71, SITE 1 | Date Received: 03/31/04 |
| SDG NO. : 04C211 | Date Extracted: 04/06/04 08:45 |
| Sample ID: 71-S1-023 | Date Analyzed: 04/14/04 12:31 |
| Lab Samp ID: C211-04 | Dilution Factor: 20 |
| Lab File ID: I07D022035 | Matrix : WATER |
| Ext Btch ID: IPD012W | % Moisture : NA |
| Calib. Ref.: I07D022032 | Instrument ID : EMAXTI07 |

| PARAMETERS | RESULTS (mg/L) | RL (mg/L) | MDL (mg/L) |
|------------|-------------------|--------------|---------------|
| Aluminum | ND | 4 | 1.2 |
| Antimony | ND | 2 | .8 |
| Barium | .0808J | .2 | .04 |
| Beryllium | ND | .2 | .02 |
| Cadmium | ND | .2 | .04 |
| Calcium | 605 | 20 | 2 |
| Chromium | ND | .4 | .1 |
| Cobalt | ND | .4 | .1 |
| Copper | ND | .2 | .1 |
| Iron | 2.28J | 20 | .6 |
| Magnesium | 1860 | 20 | 2 |
| Manganese | 6.52 | 2 | .06 |
| Nickel | .206J | .4 | .2 |
| Potassium | 404 | 100 | 20 |
| Silver | ND | .4 | .1 |
| Sodium | 13900 | 20 | .5 |
| Vanadium | ND | .2 | .1 |
| Zinc | ND | .4 | .1 |

RL: Reporting Limit

METHOD 3010A/6010B
METALS BY TRACE ICP

| | |
|-------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 03/29/04 |
| Project : MFA, CTO 71, SITE 1 | Date Received: 03/31/04 |
| SDG NO. : 04C211 | Date Extracted: 04/06/04 08:45 |
| Sample ID: 71-SI-023 | Date Analyzed: 04/26/04 12:54 |
| Lab Samp ID: C211-04 | Dilution Factor: 10 |
| Lab File ID: I31D048034 | Matrix : WATER |
| Ext Btch ID: IP0012W | % Moisture : NA |
| Calib. Ref.: I31D048032 | Instrument ID : EMAXTI31 |

| PARAMETERS | RESULTS (mg/L) | RL (mg/L) | MDL (mg/L) |
|------------|-------------------|--------------|---------------|
| ----- | ----- | ----- | ----- |
| Arsenic | ND | .1 | .04 |
| Lead | ND | .1 | .02 |
| Selenium | ND | .1 | .05 |
| Thallium | ND | .1 | .05 |

RL: Reporting Limit

METHOD 3010A/6010B
METALS BY ICP

| | |
|-------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 03/29/04 |
| Project : MFA, CTO 71, SITE 1 | Date Received: 03/31/04 |
| SDG NO. : 04C211 | Date Extracted: 04/06/04 08:45 |
| Sample ID: 71-S1-024 | Date Analyzed: 04/14/04 12:36 |
| Lab Samp ID: C211-05 | Dilution Factor: 20 |
| Lab File ID: I07D022036 | Matrix : WATER |
| Ext Btch ID: IPP012W | % Moisture : NA |
| Calib. Ref.: I07D022032 | Instrument ID : EMAXTI07 |

| PARAMETERS | RESULTS (mg/L) | RL (mg/L) | MDL (mg/L) |
|------------|-------------------|--------------|---------------|
| Aluminum | 1.32J | 4 | 1.2 |
| Antimony | ND | 2 | .8 |
| Barium | .311 | .2 | .04 |
| Beryllium | ND | .2 | .02 |
| Cadmium | ND | .2 | .04 |
| Calcium | 747 | 20 | 2 |
| Chromium | ND | .4 | .1 |
| Cobalt | ND | .4 | .1 |
| Copper | ND | .2 | .1 |
| Iron | 20.1 | 20 | .6 |
| Magnesium | 1100 | 20 | 2 |
| Manganese | 7.53 | 2 | .06 |
| Nickel | ND | .4 | .2 |
| Potassium | 180 | 100 | 20 |
| Silver | ND | .4 | .1 |
| Sodium | 6100 | 20 | .5 |
| Vanadium | ND | .2 | .1 |
| Zinc | ND | .4 | .1 |

RL: Reporting Limit

METHOD 3010A/6010B
METALS BY TRACE ICP

| | |
|-------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 03/29/04 |
| Project : MFA, CTO 71, SITE 1 | Date Received: 03/31/04 |
| SDG NO. : 04C211 | Date Extracted: 04/06/04 08:45 |
| Sample ID: 71-S1-024 | Date Analyzed: 04/26/04 12:59 |
| Lab Samp ID: C211-05 | Dilution Factor: 10 |
| Lab File ID: I31D048035 | Matrix : WATER |
| Ext Btch ID: IPD012W | % Moisture : NA |
| Calib. Ref.: I31D048032 | Instrument ID : EMAXTI31 |

| PARAMETERS | RESULTS (mg/L) | RL (mg/L) | MDL (mg/L) |
|------------|-------------------|--------------|---------------|
| ----- | ----- | ----- | ----- |
| Arsenic | ND | .1 | .04 |
| Lead | ND | .1 | .02 |
| Selenium | ND | .1 | .05 |
| Thallium | .0629J | .1 | .05 |

RL: Reporting Limit

METHOD 3010A/6010B
 METALS BY ICP

| | |
|-------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 03/30/04 |
| Project : MFA, CTO 71, SITE 1 | Date Received: 03/31/04 |
| SDG NO. : 04C211 | Date Extracted: 04/06/04 08:45 |
| Sample ID: 71-S1-019 | Date Analyzed: 04/14/04 12:40 |
| Lab Samp ID: C211-06 | Dilution Factor: 20 |
| Lab File ID: I07D022037 | Matrix : WATER |
| Ext Btch ID: IPD012W | % Moisture : NA |
| Calib. Ref.: I07D022032 | Instrument ID : EMAXY107 |

| PARAMETERS | RESULTS (mg/L) | RL (mg/L) | MDL (mg/L) |
|------------|-------------------|--------------|---------------|
| Aluminum | 1.23J | 4 | 1.2 |
| Antimony | ND | 2 | .8 |
| Barium | .081J | .2 | .04 |
| Beryllium | ND | .2 | .02 |
| Cadmium | ND | .2 | .04 |
| Calcium | 550 | 20 | 2 |
| Chromium | ND | .4 | .1 |
| Cobalt | ND | .4 | .1 |
| Copper | ND | .2 | .1 |
| Iron | 3.01J | 20 | .6 |
| Magnesium | 1860 | 20 | 2 |
| Manganese | 4.27 | 2 | .06 |
| Nickel | ND | .4 | .2 |
| Potassium | 455 | 100 | 20 |
| Silver | ND | .4 | .1 |
| Sodium | 13700 | 20 | .5 |
| Vanadium | ND | .2 | .1 |
| Zinc | ND | .4 | .1 |

RL: Reporting Limit

METHOD 3010A/6010B
 METALS BY TRACE ICP

| | |
|-------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 03/30/04 |
| Project : MFA, CTO 71, SITE 1 | Date Received: 03/31/04 |
| SDG NO. : 04C211 | Date Extracted: 04/06/04 08:45 |
| Sample ID: 71-S1-019 | Date Analyzed: 04/26/04 13:03 |
| Lab Samp ID: C211-06 | Dilution Factor: 10 |
| Lab File ID: I31D048036 | Matrix : WATER |
| Ext Btch ID: IPD012W | % Moisture : NA |
| Calib. Ref.: I31D048032 | Instrument ID : EMAXTI31 |

| PARAMETERS | RESULTS (mg/L) | RL (mg/L) | MDL (mg/L) |
|------------|-------------------|--------------|---------------|
| Arsenic | ND | .1 | .04 |
| Lead | ND | .1 | .02 |
| Selenium | ND | .1 | .05 |
| Thallium | ND | .1 | .05 |

RL: Reporting Limit

METHOD 3010A/6010B
 METALS BY ICP

| | |
|-------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 03/30/04 |
| Project : MFA, CTD 71, SITE 1 | Date Received: 03/31/04 |
| SDG NO. : 04C211 | Date Extracted: 04/06/04 08:45 |
| Sample ID: 71-S1-020 | Date Analyzed: 04/14/04 12:44 |
| Lab Samp ID: C211-07 | Dilution Factor: 20 |
| Lab File ID: I070022038 | Matrix : WATER |
| Ext Btch ID: IPD012W | % Moisture : NA |
| Calib. Ref.: I070022032 | Instrument ID : EMAXI07 |

| PARAMETERS | RESULTS (mg/L) | RL (mg/L) | MDL (mg/L) |
|------------|-------------------|--------------|---------------|
| Aluminum | ND | 4 | 1.2 |
| Antimony | ND | 2 | .8 |
| Barium | .0748J | .2 | .04 |
| Beryllium | ND | .2 | .02 |
| Cadmium | ND | .2 | .04 |
| Calcium | 586 | 20 | 2 |
| Chromium | ND | .4 | .1 |
| Cobalt | ND | .4 | .1 |
| Copper | ND | .2 | .1 |
| Iron | 3.15J | 20 | .6 |
| Magnesium | 1990 | 20 | 2 |
| Manganese | 4.53 | 2 | .06 |
| Nickel | ND | .4 | .2 |
| Potassium | 487 | 100 | 20 |
| Silver | ND | .4 | .1 |
| Sodium | 14500 | 20 | .5 |
| Vanadium | ND | .2 | .1 |
| Zinc | ND | .4 | .1 |

RL: Reporting Limit

7014

METHOD 3010A/6010B
METALS BY TRACE ICP

| | |
|-------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 03/30/04 |
| Project : MFA, CTO 71, SITE 1 | Date Received: 03/31/04 |
| SDG NO. : 04C211 | Date Extracted: 04/06/04 08:45 |
| Sample ID: 71-S1-020 | Date Analyzed: 04/26/04 13:09 |
| Lab Samp ID: C211-07 | Dilution Factor: 10 |
| Lab File ID: I31D048037 | Matrix : WATER |
| Ext Btch ID: IPD012W | % Moisture : NA |
| Calib. Ref.: I31D048032 | Instrument ID : EMAXI31 |

| PARAMETERS | RESULTS (mg/L) | RL (mg/L) | MDL (mg/L) |
|------------|-------------------|--------------|---------------|
| Arsenic | ND | .1 | .04 |
| Lead | ND | .1 | .02 |
| Selenium | ND | .1 | .05 |
| Thallium | ND | .1 | .05 |

RL: Reporting Limit

METHOD 3010A/6010B
 METALS BY ICP

| | |
|-------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 03/30/04 |
| Project : MFA, CTO 71, SITE 1 | Date Received: 03/31/04 |
| SDG NO. : 04C211 | Date Extracted: 04/06/04 08:45 |
| Sample ID: 71-S1-022 | Date Analyzed: 04/14/04 12:49 |
| Lab Samp ID: C211-08 | Dilution Factor: 20 |
| Lab File ID: I070022039 | Matrix : WATER |
| Ext Btch ID: IPD012W | % Moisture : NA |
| Calib. Ref.: I070022032 | Instrument ID : EMAXI07 |

| PARAMETERS | RESULTS (mg/L) | RL (mg/L) | MDL (mg/L) |
|------------|-------------------|--------------|---------------|
| Aluminum | ND | 4 | 1.2 |
| Antimony | ND | 2 | .8 |
| Barium | .16J | .2 | .04 |
| Beryllium | ND | .2 | .02 |
| Cadmium | ND | .2 | .04 |
| Calcium | 642 | 20 | 2 |
| Chromium | ND | .4 | .1 |
| Cobalt | ND | .4 | .1 |
| Copper | ND | .2 | .1 |
| Iron | 14.6J | 20 | .6 |
| Magnesium | 2120 | 20 | 2 |
| Manganese | 2.78 | 2 | .06 |
| Nickel | ND | .4 | .2 |
| Potassium | 473 | 100 | 20 |
| Silver | ND | .4 | .1 |
| Sodium | 15000 | 20 | .5 |
| Vanadium | ND | .2 | .1 |
| Zinc | ND | .4 | .1 |

RL: Reporting Limit

METHOD 3010A/6010B
METALS BY TRACE ICP

| | |
|-------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 03/30/04 |
| Project : MFA, CTO 71, SITE 1 | Date Received: 03/31/04 |
| SDG NO. : 04C211 | Date Extracted: 04/06/04 08:45 |
| Sample ID: 71-S1-022 | Date Analyzed: 04/26/04 13:14 |
| Lab Samp ID: C211-08 | Dilution Factor: 10 |
| Lab File ID: I31D048038 | Matrix : WATER |
| Ext Btch ID: IPD012W | % Moisture : NA |
| Calib. Ref.: I31D048032 | Instrument ID : EMAXTI31 |

| PARAMETERS | RESULTS (mg/L) | RL (mg/L) | MDL (mg/L) |
|------------|-------------------|--------------|---------------|
| ----- | ----- | ----- | ----- |
| Arsenic | ND | .1 | .04 |
| Lead | ND | .1 | .02 |
| Selenium | ND | .1 | .05 |
| Thallium | ND | .1 | .05 |

RL: Reporting Limit

CASE NARRATIVE

CLIENT: TETRA TECH FW, INC.

PROJECT: MFA, CTO 71, SITE 1

SDG: 04C211

METHOD 7470A
TOTAL & DISSOLVED MERCURY BY COLD VAPOR

Seven (7) water samples were received on 03/31/04 for Total and Dissolved Mercury analysis by Method 7470A in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW846, 3rd ed.

1. Holding Time

Analysis met the holding time criteria.

2. Method Blank

Method blanks were free of contamination at the reporting limit.

3. Lab Control Sample/Lab Control Sample Duplicate

Lab control results were within the control limits.

4. Serial Dilution/Post Analytical Spike

Sample C211-03 was analyzed for serial dilution. % Difference was not evaluated since diluted sample result was not detected. Analytical spike was performed and met the QC criteria were met.

5. Matrix Spike/Matrix Spike Duplicate

Sample C211-03 was spiked. The recoveries were within the QC limit.

6. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criteria were met.

Samples were analyzed with dilution factor of 10 matrix problem.

METHOD 7470A
MERCURY BY COLD VAPOR

Client : TETRA TECH FW, INC.
Project : MFA, CTO 71, SITE 1
Batch No. : 04C211

Matrix : WATER
Instrument ID : TI047

| SAMPLE ID | EMAX SAMPLE ID | RESULTS (ug/L) | DLF | MOIST | RL (ug/L) | MDL (ug/L) | Analysis DATE/TIME | Extraction DATE/TIME | LFTD | CAL REF | PREP BATCH | Collection DATE/TIME | Received DATE/TIME |
|--------------|-------------------|-------------------|-----|-------|--------------|---------------|-----------------------|-------------------------|------------|------------|------------|-------------------------|-----------------------|
| M8LK1W | HGD018MB | ND | 1 | NA | .5 | .25 | 04/20/0415:33 | 04/19/0416:00 | M470017034 | M470017032 | HGD018W | NA | 04/19/04 |
| LCS1W | HGD018ML | 5.07 | 1 | NA | .5 | .25 | 04/20/0415:35 | 04/19/0416:00 | M470017035 | M470017032 | HGD018W | NA | 04/19/04 |
| LCS1W | HGD018MC | 5.07 | 1 | NA | .5 | .25 | 04/20/0415:37 | 04/19/0416:00 | M470017036 | M470017032 | HGD018W | NA | 04/19/04 |
| 71-S1-018AS | C211-03A | 170 | 10 | NA | 5 | 2.5 | 04/20/0415:39 | 04/19/0416:00 | M470017037 | M470017032 | HGD018W | 03/29/04 | 03/31/04 |
| 71-S1-018 | C211-03 | ND | 10 | NA | 5 | 2.5 | 04/20/0415:41 | 04/19/0416:00 | M470017038 | M470017032 | HGD018W | 03/29/04 | 03/31/04 |
| 71-S1-018DL | C211-03T | ND | 50 | NA | 25 | 12.5 | 04/20/0415:44 | 04/19/0416:00 | M470017039 | M470017032 | HGD018W | 03/29/04 | 03/31/04 |
| 71-S1-017 | C211-02 | ND | 10 | NA | 5 | 2.5 | 04/20/0415:50 | 04/19/0416:00 | M470017042 | M470017032 | HGD018W | 03/29/04 | 03/31/04 |
| 71-S1-023 | C211-04 | ND | 10 | NA | 5 | 2.5 | 04/20/0415:52 | 04/19/0416:00 | M470017043 | M470017032 | HGD018W | 03/29/04 | 03/31/04 |
| 71-S1-024 | C211-05 | ND | 10 | NA | 5 | 2.5 | 04/20/0415:59 | 04/19/0416:00 | M470017046 | M470017044 | HGD018W | 03/29/04 | 03/31/04 |
| 71-S1-019 | C211-06 | ND | 10 | NA | 5 | 2.5 | 04/20/0416:01 | 04/19/0416:00 | M470017047 | M470017044 | HGD018W | 03/30/04 | 03/31/04 |
| 71-S1-020 | C211-07 | ND | 10 | NA | 5 | 2.5 | 04/20/0416:04 | 04/19/0416:00 | M470017048 | M470017044 | HGD018W | 03/30/04 | 03/31/04 |
| 71-S1-022 | C211-08 | ND | 10 | NA | 5 | 2.5 | 04/20/0416:06 | 04/19/0416:00 | M470017049 | M470017044 | HGD018W | 03/30/04 | 03/31/04 |
| 71-S1-018HS | C211-03M | 22.3 | 10 | NA | 5 | 2.5 | 04/20/0416:25 | 04/19/0416:00 | M470017058 | M470017056 | HGD018W | 03/29/04 | 03/31/04 |
| 71-S1-018MSD | C211-03S | 21.5 | 10 | NA | 5 | 2.5 | 04/20/0416:28 | 04/19/0416:00 | M470017059 | M470017056 | HGD018W | 03/29/04 | 03/31/04 |

RL: Reporting Limit

CASE NARRATIVE

CLIENT: TETRA TECH FW, INC.

PROJECT: MFA, CTO 71, SITE 1

SDG: 04C211

METHOD 353.3
NITRATE/NITRITE-N

Seven (7) water samples were received on 03/31/04 for Nitrate/Nitrite-N analysis by Method 353.3 in accordance with "Methods for Chemical Analysis of water and Wastewater", EPA 600/4-79-020 (1983).

1. Holding Time

Analysis met holding time criteria.

2. Method Blank

Method blank was free of contamination at the reporting limit.

3. Lab Control Sample/Lab Control Sample Duplicate

Lab control results were within QC limit.

4. Duplicate

Sample C211-03 was analyzed for duplicate. %RPD was within QC limit.

5. Matrix Spike

Sample C211-03 was spiked. %Recovery was within QC limit.

6. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criteria were met.

METHOD 353.3
NITRATE/NITRITE-N

Client : TETRA TECH FU, INC.
Project : MFA, CTO 71, SITE 1
Batch No. : 04C211
Matrix : WATER
Instrument ID : 170

| SAMPLE ID | EMAX SAMPLE ID | RESULTS (mg/L) | DLF | MOIST | RL (mg/L) | MDL (mg/L) | Analysis DATE/TIME | Extraction DATE/TIME | LFID | CAL REF | PREP BATCH | Collection DATE/TIME | Received DATE/TIME |
|--------------|-------------------|-------------------|-----|-------|--------------|---------------|-----------------------|-------------------------|------------|------------|------------|-------------------------|-----------------------|
| MBLK1W | NAD001WB | ND | 1 | NA | .1 | .02 | 04/09/0411:09 | NA | NAD001W-10 | NAD001W-07 | NAD001W | NA | NA |
| LCS1W | NAD001WL | .520 | 1 | NA | .1 | .02 | 04/09/0411:10 | NA | NAD001W-11 | NAD001W-07 | NAD001W | NA | NA |
| LCD1W | NAD001WC | .530 | 1 | NA | .1 | .02 | 04/09/0411:11 | NA | NAD001W-12 | NAD001W-07 | NAD001W | NA | NA |
| 71-S1-017 | C211-02 | .140 | 1 | NA | .1 | .02 | 04/09/0411:12 | NA | NAD001W-13 | NAD001W-07 | NAD001W | 03/29/04 | 03/31/04 |
| 71-S1-018 | C211-03 | ND | 1 | NA | .1 | .02 | 04/09/0411:13 | NA | NAD001W-14 | NAD001W-07 | NAD001W | 03/29/04 | 03/31/04 |
| 71-S1-018DUP | C211-03D | ND | 1 | NA | .1 | .02 | 04/09/0411:14 | NA | NAD001W-15 | NAD001W-07 | NAD001W | 03/29/04 | 03/31/04 |
| 71-S1-018MS | C211-03M | .527 | 1 | NA | .1 | .02 | 04/09/0411:15 | NA | NAD001W-16 | NAD001W-07 | NAD001W | 03/29/04 | 03/31/04 |
| 71-S1-023 | C211-04 | 1.11 | 2 | NA | .2 | .04 | 04/09/0411:17 | NA | NAD001W-18 | NAD001W-07 | NAD001W | 03/29/04 | 03/31/04 |
| 71-S1-024 | C211-05 | .527 | 1 | NA | .1 | .02 | 04/09/0411:20 | NA | NAD001W-21 | NAD001W-19 | NAD001W | 03/29/04 | 03/31/04 |
| 71-S1-019 | C211-06 | ND | 1 | NA | .1 | .02 | 04/09/0411:21 | NA | NAD001W-22 | NAD001W-19 | NAD001W | 03/30/04 | 03/31/04 |
| 71-S1-020 | C211-07 | ND | 1 | NA | .1 | .02 | 04/09/0411:22 | NA | NAD001W-23 | NAD001W-19 | NAD001W | 03/30/04 | 03/31/04 |
| 71-S1-022 | C211-08 | .118 | 1 | NA | .1 | .02 | 04/09/0411:33 | NA | NAD001W-34 | NAD001W-31 | NAD001W | 03/30/04 | 03/31/04 |

CASE NARRATIVE

CLIENT: TETRA TECH FW, INC.

PROJECT: MFA, CTO 71, SITE 1

SDG: 04C211

METHOD 415.1
TOC

Seven (7) water samples were received on 03/31/04 for TOC analysis by Method 415.1 in accordance with "Methods for Chemical Analysis of Water and Wastewater", EPA 600/4-79-020 (1983).

1. Holding Time

Analysis met holding time criteria.

2. Method Blank

Method blank was free of contamination at the reporting limit.

3. Lab Control Sample/Lab Control Sample Duplicate

Lab control results were within QC limit.

4. Duplicate

Sample C211-03 was analyzed for duplicate. %RPD was within QC limit.

5. Matrix Spike

Sample C211-03 was spiked. %Recovery was within QC limit.

6. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criteria were met.

METHOD 415.1
TOC

Client : TETRA TECH FW, INC.
Project : MFA, CTO 71, SITE 1
Batch No. : 04C211

Matrix : WATER
Instrument ID : 162

| SAMPLE ID | EMAX SAMPLE ID | RESULTS (mg/L) | DLF | MOIST | RL (mg/L) | MDL (mg/L) | Analysis DATETIME | Extraction DATETIME | LFID | CAL REF | PREP BATCH | Collection DATETIME | Received DATETIME |
|--------------|----------------|----------------|-----|-------|-----------|------------|-------------------|---------------------|-----------|-----------|------------|---------------------|-------------------|
| MBLK1W | TC0002WB | ND | 1 | NA | 5 | 1 | 04/12/0410:28 | NA | TC0012-5 | TC0012-2 | TC0002W | NA | NA |
| LCS1W | TC0002WL | 34.4 | 1 | NA | 5 | 1 | 04/12/0410:39 | NA | TC0012-6 | TC0012-2 | TC0002W | NA | NA |
| LCD1W | TC0002WC | 30.8 | 1 | NA | 5 | 1 | 04/12/0410:49 | NA | TC0012-7 | TC0012-2 | TC0002W | NA | NA |
| 71-S1-017 | C211-02 | 6.07 | 1 | NA | 5 | 1 | 04/12/0413:36 | NA | TC0012-23 | TC0012-14 | TC0002W | 03/29/04 | 03/31/04 |
| 71-S1-018 | C211-03 | 12.9 | 1 | NA | 5 | 1 | 04/12/0413:46 | NA | TC0012-24 | TC0012-14 | TC0002W | 03/29/04 | 03/31/04 |
| 71-S1-018DUP | C211-03D | 12.9 | 1 | NA | 5 | 1 | 04/12/0413:56 | NA | TC0012-25 | TC0012-14 | TC0002W | 03/29/04 | 03/31/04 |
| 71-S1-018MS | C211-03M | 35.8 | 1 | NA | 5 | 1 | 04/12/0414:27 | NA | TC0012-28 | TC0012-26 | TC0002W | 03/29/04 | 03/31/04 |
| 71-S1-023 | C211-04 | 6.48 | 1 | NA | 5 | 1 | 04/12/0414:37 | NA | TC0012-29 | TC0012-26 | TC0002W | 03/29/04 | 03/31/04 |
| 71-S1-019 | C211-06 | 9.41 | 1 | NA | 5 | 1 | 04/12/0414:58 | NA | TC0012-31 | TC0012-26 | TC0002W | 03/30/04 | 03/31/04 |
| 71-S1-020 | C211-07 | 9.00 | 1 | NA | 5 | 1 | 04/12/0415:09 | NA | TC0012-32 | TC0012-26 | TC0002W | 03/30/04 | 03/31/04 |
| 71-S1-022 | C211-08 | 11.8 | 1 | NA | 5 | 1 | 04/12/0415:19 | NA | TC0012-33 | TC0012-26 | TC0002W | 03/30/04 | 03/31/04 |
| MBLK2W | TC0004WB | ND | 1 | NA | 5 | 1 | 04/13/0411:36 | NA | TC0013-5 | TC0013-2 | TC0004W | NA | NA |
| LCS2W | TC0004WL | 39.6 | 1 | NA | 5 | 1 | 04/13/0411:47 | NA | TC0013-6 | TC0013-2 | TC0004W | NA | NA |
| LCD2W | TC0004WC | 39.0 | 1 | NA | 5 | 1 | 04/13/0411:57 | NA | TC0013-7 | TC0013-2 | TC0004W | NA | NA |
| 71-S1-024 | C211-05 | 95.3 | 2 | NA | 10 | 2 | 04/13/0412:40 | NA | TC0013-11 | TC0013-2 | TC0004W | 03/29/04 | 03/31/04 |

RL : Reporting Limit

8010

**Laboratory Data Consultants, Inc.
Data Validation Report**

Project/Site Name: Moffett Air Field, CTO 71
Collection Date: March 29 through March 30, 2004
LDC Report Date: May 5, 2004
Matrix: Water
Parameters: Wet Chemistry
Validation Level: EPA Level III
Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 04C211

Sample Identification

71-S1-017
71-S1-018
71-S1-023
71-S1-024
71-S1-019
71-S1-020
71-S1-022
71-S1-018MS
71-S1-018DUP

Introduction

This data review covers 9 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA Method 353.3 for Nitrate/Nitrite as Nitrogen, and EPA Method 415.1 for Total Organic Carbon.

The review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (February 1994) as there are no current guidelines for the methods stated above.

A table summarizing all data qualification is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section III.

Field duplicates are summarized in Section IX.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

a. Initial Calibration

All criteria for the initial calibration of each method were met.

b. Calibration Verification

Calibration verification frequency and analysis criteria were met for each method when applicable.

III. Blanks

Method blanks were reviewed for each matrix as applicable. No contaminant concentrations were found in the method blanks.

IV. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) analyses were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

V. Duplicates

Duplicate (DUP) sample analyses were reviewed for each matrix as applicable. Results were within QC limits.

VI. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VII. Sample Result Verification

Raw data were not reviewed for this SDG.

VIII. Overall Assessment of Data

Data flags are summarized at the end of this report.

IX. Field Duplicates

Samples 71-S1-019 and 71-S1-020 were identified as field duplicates. No contaminant concentrations were detected in any of the samples with the following exceptions:

| Analyte | Concentration (mg/L) | | RPD |
|----------------------|----------------------|-----------|-----|
| | 71-S1-019 | 71-S1-020 | |
| Total organic carbon | 9.41 | 9.00 | 4 |

X. Field Blanks

No field blanks were identified in this SDG.

Moffett Air Field, CTO 71

Wet Chemistry - Data Qualification Summary - SDG 04C211

No Sample Data Qualified in this SDG

Moffett Air Field, CTO 71

Wet Chemistry - Laboratory Blank Data Qualification Summary - SDG 04C211

No Sample Data Qualified in this SDG

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Moffett Airfield, CTO 71
Collection Date: March 29 through March 30, 2004
LDC Report Date: May 5, 2004
Matrix: Water
Parameters: Metals
Validation Level: EPA Level IV
Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 04C211

Sample Identification

71-S1-017
71-S1-018
71-S1-023
71-S1-024
71-S1-019
71-S1-020
71-S1-022
71-S1-017F
71-S1-018F
71-S1-023F
71-S1-024F
71-S1-019F
71-S1-020F
71-S1-022F
71-S1-018MS
71-S1-018MSD
71-S1-018FMS
71-S1-018FMSD

Sample IDs ending in "F" were analyzed for dissolved metals

Introduction

This data review covers 18 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Methods 6010B and 7000 for Metals. The metals analyzed were Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, and Zinc.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (February 1994) as there are no current guidelines for the method stated above.

A table summarizing all data qualification flags is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from specified protocols or is of technical advisory nature.

Blanks are summarized in Section III.

Field duplicates are summarized in Section XIII.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

An initial calibration was performed.

The frequency and analysis criteria of the initial calibration verification (ICV) and continuing calibration verification (CCV) were met.

III. Blanks

Method blanks were reviewed for each matrix as applicable.

Data qualification by the initial, continuing and preparation blanks (ICB/CCB/PBs) was based on the maximum contaminant concentration in the ICB/CCB/PBs in the analysis of each analyte. No contaminant concentrations were found in the initial, continuing and preparation blanks with the following exceptions:

| Method Blank ID | Analyte | Maximum Concentration | Associated Samples |
|-----------------|-----------------|-----------------------|---------------------------------------------------------------|
| ICB/CCB | Potassium (20x) | 1619 ug/L | 71-S1-023 71-S1-024 71-S1-019 71-S1-020 71-S1-022 |
| ICB/CCB | Thallium (10x) | 5.40 ug/L | All samples in SDG 04C211 |

Sample concentrations were compared to the maximum contaminant concentrations detected in the ICB/CCB/PBs. The sample concentrations were either not detected or were significantly greater (>5X blank contaminants) than the concentrations found in the associated method blanks with the following exceptions:

| Sample | Analyte | Reported Concentration | Modified Final Concentration |
|-----------|----------|------------------------|------------------------------|
| 71-S1-024 | Thallium | 0.0629 mg/L | 0.0629U mg/L |

IV. ICP Interference Check Sample (ICS) Analysis

The frequency of analysis was met.

The criteria for analysis were met.

V. Matrix Spike Analysis

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

| Spike ID (Associated Samples) | Analyte | MS (%R) (Limits) | MSD (%R) (Limits) | RPD (Limits) | Flag | A or P |
|----------------------------------------------------------------------------------------------------------------------|-----------|---------------------|----------------------|-----------------|-----------------------------------------|--------|
| 71-S1-018FMS/MSD (71-S1-017F 71-S1-018F 71-S1-023F 71-S1-024F 71-S1-019F 71-S1-020F 71-S1-022F) | Iron | - | 68 (75-125) | - | J (all detects) UJ (all non-detects) | A |
| | Manganese | 69 (75-125) | 61 (75-125) | - | J (all detects) UJ (all non-detects) | |

VI. Duplicate Sample Analysis

The laboratory has indicated that there were no duplicate (DUP) analyses specified for the samples in this SDG, and therefore duplicate analyses were not performed for this SDG.

VII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Internal Standards

ICP-MS was not utilized in this SDG.

IX. Furnace Atomic Absorption QC

Graphite furnace atomic absorption was not utilized in this SDG.

X. ICP Serial Dilution

Although ICP serial dilution analysis was not required by the method, it was performed by the laboratory. The analysis criteria were met.

XI. Sample Result Verification

All sample result verifications met validation criteria for samples.

XII. Overall Assessment of Data

Data flags have been summarized at the end of this report.

XIII. Field Duplicates

Samples 71-S1-019 and 71-S1-020 and samples 71-S1-019F and 71-S1-020F were identified as field duplicates. No metals were detected in any of the samples with the following exceptions:

| Analyte | Concentration (mg/L) | | RPD |
|-----------|----------------------|-----------|----------------|
| | 71-S1-019 | 71-S1-020 | |
| Aluminum | 1.23 | 4U | Not calculable |
| Barium | 0.081 | 0.0748 | 8 |
| Calcium | 550 | 586 | 6 |
| Iron | 3.01 | 3.15 | 5 |
| Magnesium | 1860 | 1990 | 7 |
| Manganese | 4.27 | 4.53 | 6 |
| Potassium | 455 | 487 | 7 |
| Sodium | 13700 | 14500 | 6 |

| Analyte | Concentration (mg/Kg) | | RPD |
|-----------|-----------------------|------------|-----|
| | 71-S1-019F | 71-S1-020F | |
| Barium | 0.0818 | 0.0834 | 2 |
| Calcium | 603 | 573 | 5 |
| Iron | 3.26 | 3.16 | 3 |
| Magnesium | 2070 | 1970 | 5 |
| Manganese | 4.62 | 4.36 | 6 |

| Analyte | Concentration (mg/Kg) | | RPD |
|-----------|-----------------------|------------|-----|
| | 71-S1-019F | 71-S1-020F | |
| Potassium | 500 | 457 | 9 |
| Sodium | 15400 | 14600 | 5 |

XIV. Field Blanks

No field blanks were identified in this SDG.

Moffett Airfield, CTO 71**Metals - Data Qualification Summary - SDG 04C211**

| SDG | Sample | Analyte | Flag | A or P | Reason |
|--------|------------------------------------------------------------------------------------------------|-----------------------|------------------------------------------------------------------------------------|--------|----------------------------------------------|
| 04C211 | 71-S1-017F 71-S1-018F 71-S1-023F 71-S1-024F 71-S1-019F 71-S1-020F 71-S1-022F | Iron Manganese | J (all detects) UJ (all non-detects) J (all detects) UJ (all non-detects) | A | Matrix spike/Matrix spike duplicates (%R) |

Moffett Airfield, CTO 71**Metals - Laboratory Blank Data Qualification Summary - SDG 04C211**

| SDG | Sample | Analyte | Modified Final Concentration | A or P |
|--------|-----------|----------|---------------------------------|--------|
| 04C211 | 71-S1-024 | Thallium | 0.0629U mg/L | A |

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Moffett Airfield, CTO 71
Collection Date: March 29, 2004
LDC Report Date: May 7, 2004
Matrix: Water
Parameters: Polychlorinated Biphenyls
Validation Level: EPA Level IV
Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 04C211

Sample Identification

71-S1-017
71-S1-018
71-S1-023
71-S1-024
71-S1-019
71-S1-020
71-S1-022
71-S1-018MS
71-S1-018MSD

Introduction

This data review covers 9 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8082 for Polychlorinated Biphenyls.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification flags is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XIV.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/ECD Instrument Performance Check

Instrument performance was acceptable unless noted otherwise under initial calibration and continuing calibration sections.

III. Initial Calibration

Initial calibration of multicomponent compounds was performed for the primary (quantitation) column as required by the method.

The percent relative standard deviations (%RSD) were less than or equal to 20.0% for all compounds.

Retention time windows were evaluated and considered technically acceptable.

IV. Continuing Calibration

Continuing calibration was performed at required frequencies.

The percent differences (%D) of calibration factors in continuing standard mixtures were within the 15.0% QC limits.

Initial calibration verification (ICV) percent differences (%D) were less than or equal to 20.0% for all compounds.

Retention times (RT) of all compounds in the calibration standards were within QC limits.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No polychlorinated biphenyl contaminants were found in the method blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Pesticide Cleanup Checks

a. Florisil Cartridge Check

Florisil cleanup was not required and therefore not performed in this SDG.

b. GPC Calibration

GPC cleanup was not required and therefore not performed in this SDG.

XI. Target Compound Identification

All target compound identifications were within validation criteria.

XII. Compound Quantitation and Reported CRQLs

All compound quantitation and CRQLs were within validation criteria.

XIII. Overall Assessment of Data

Data flags are summarized at the end of this report.

XIV. Field Duplicates

Samples 71-S1-019 and 71-S1-020 were identified as field duplicates. No polychlorinated biphenyls were detected in any of the samples.

XV. Field Blanks

No field blanks were identified in this SDG.

Moffett Airfield, CTO 71

Polychlorinated Biphenyls - Data Qualification Summary - SDG 04C211

No Sample Data Qualified in this SDG

Moffett Airfield, CTO 71

Polychlorinated Biphenyls - Laboratory Blank Data Qualification Summary - SDG 04C211

No Sample Data Qualified in this SDG

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Moffett Airfield, CTO 71

Collection Date: March 29, 2004

LDC Report Date: May 10, 2004

Matrix: Water

Parameters: Chlorinated Pesticides

Validation Level: EPA Level IV

Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 04C211

Sample Identification

71-S1-017

71-S1-018

71-S1-023

71-S1-024

71-S1-019

71-S1-020

71-S1-022

71-S1-018MS

71-S1-018MSD

Introduction

This data review covers 9 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8081A for Chlorinated Pesticides.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification flags is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XIV.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/ECD Instrument Performance Check

Instrument performance was acceptable unless noted otherwise under initial calibration and continuing calibration sections.

III. Initial Calibration

Initial calibration of single and multicomponent compounds was performed for the primary (quantitation) column and confirmation column as required by this method.

The percent relative standard deviations (%RSD) were less than or equal to 20.0% for all compounds.

Retention time windows were evaluated and considered technically acceptable.

IV. Continuing Calibration

Continuing calibration was performed at required frequencies.

The percent differences (%D) of calibration factors in continuing standard mixtures were within the 15.0% QC limits with the following exceptions:

| Date | Standard | Column | Compound | %D | Associated Samples | Flag | A or P |
|--------|----------|--------------|---------------------------------------------------------------------|----------------------------|------------------------------|-----------------------------------------|--------|
| 4/2/04 | SD02004A | RTX-CLPEST | Heptachlor 4,4'-DDD 4,4'-DDT Methoxychlor Endrin ketone | 17 17 31 33 16 | All samples in SDG 04C211 | J (all detects) UJ (all non-detects) | A |
| 4/2/04 | SD02004A | RTX-CLPESTII | delta-BHC 4,4'-DDT Methoxychlor | 18 17 17 | All samples in SDG 04C211 | J (all detects) UJ (all non-detects) | A |

Retention times (RT) of all compounds in the calibration standards were within QC limits.

The percent difference (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

The individual 4,4'-DDT and Endrin breakdowns were less than or equal to 15.0% .

V. Blanks

Method blanks were reviewed for each matrix as applicable. No chlorinated pesticide contaminants were found in the method blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits with the following exceptions:

| Sample | Column | Surrogate | %R (Limits) | Compound | Flag | A or P |
|-----------|-----------|----------------------|--------------|-------------------|-----------------|--------|
| 71-S1-024 | Channel A | Tetrachloro-m-xylene | 182 (20-145) | All TCL compounds | J (all detects) | P |

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Pesticide Cleanup Checks

a. Florisil Cartridge Check

Florisil cleanup was not required and therefore not performed in this SDG.

b. GPC Calibration

GPC cleanup was not required and therefore not performed in this SDG.

XI. Target Compound Identification

All target compound identifications were within validation criteria.

XII. Compound Quantitation and Reported CRQLs

All compound quantitation and CRQLs were within validation criteria.

The sample results for detected compounds from the two columns were within 40.0% relative percent differences (RPD) with the following exceptions:

| Sample | Compound | %RPD | Flag | A or P |
|-----------|-----------|------|-----------------|--------|
| 71-S1-024 | alpha-BHC | 99 | J (all detects) | A |

XIII. Overall Assessment of Data

Data flags are summarized at the end of this report.

XIV. Field Duplicates

Samples 71-S1-019 and 71-S1-020 were identified as field duplicates. No chlorinated pesticides were detected in any of the samples with the following exceptions:

| Compound | Concentration (ug/L) | | RPD |
|------------|----------------------|-----------|----------------|
| | 71-S1-019 | 71-S1-020 | |
| Heptachlor | 0.013 | 0.047U | Not calculable |

XV. Field Blanks

No field blanks were identified in this SDG.

Moffett Airfield, CTO 71**Chlorinated Pesticides - Data Qualification Summary - SDG 04C211**

| SDG | Sample | Compound | Flag | A or P | Reason |
|--------|-----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|-----------------------------------------|--------|--------------------------------------|
| 04C211 | 71-S1-017 71-S1-018 71-S1-023 71-S1-024 71-S1-019 71-S1-020 71-S1-022 | Heptachlor 4,4'-DDD 4,4'-DDT Methoxychlor Endrin ketone delta-BHC | J (all detects) UJ (all non-detects) | A | Continuing calibration (%D) |
| 04C211 | 71-S1-024 | All TCL compounds | J (all detects) | P | Surrogate spikes (%R) |
| 04C211 | 71-S1-024 | alpha-BHC | J (all detects) | A | Compound quantitation and CRQLs (%D) |

Moffett Airfield, CTO 71**Chlorinated Pesticides - Laboratory Blank Data Qualification Summary - SDG 04C211**

No Sample Data Qualified in this SDG

**Laboratory Data Consultants, Inc.
Data Validation Report**

Project/Site Name: Moffett Air Field, CTO 71
Collection Date: March 29 through March 30, 2004
LDC Report Date: May 10, 2004
Matrix: Water
Parameters: Volatiles
Validation Level: EPA Level IV
Laboratory: EMAX Laboratories, Inc.
Sample Delivery Group (SDG): 04C211

Sample Identification

71-S1-030
71-S1-017
71-S1-018
71-S1-023
71-S1-024
71-S1-019
71-S1-020
71-S1-022
71-S1-018MS
71-S1-018MSD

Introduction

This data review covers 10 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8260B for Volatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XVI.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

For selected compounds the mean percent relative standard deviation (%RSD) was less than or equal to 15.0% and less than or equal to 30.0% for individual compounds.

A curve fit, based on the initial calibration, was established for quantitation for selected compounds. The coefficient of determination (r^2) was greater than or equal to 0.990 .

Average relative response factors (RRF) for all system performance check compounds (SPCCs) were within method criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

The mean percent difference (%D) between the initial calibration RRF and the continuing calibration RRF was less than or equal to 20.0% and less than or equal to 25.0% for individual compounds.

For the purposes of technical evaluation, all compounds were evaluated against the 25.0% (%D) National Functional Guideline criteria. Unless noted above, all compounds were within the validation criteria with the following exceptions:

| Date | Compound | %D | Associated Samples | Flag | A or P |
|--------|------------------|------|---------------------------|-----------------------------------------|--------|
| 4/1/04 | Carbon disulfide | 27.4 | All samples in SDG 04C211 | J (all detects) UJ (all non-detects) | A |

The percent difference (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

All of the continuing calibration RRF values for all system performance check compounds (SPCCs) were within method and validation criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No volatile contaminants were found in the method blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits with the following exceptions:

| Sample | Surrogate | %R (Limits) | Compound | Flag | A or P |
|-----------|-----------------------|--------------|-------------------|-----------------|--------|
| 71-S1-017 | 1,2-Dichloroethane-d4 | 126 (75-125) | All TCL compounds | J (all detects) | P |
| 71-S1-019 | 1,2-Dichloroethane-d4 | 126 (75-125) | All TCL compounds | J (all detects) | P |
| 71-S1-020 | 1,2-Dichloroethane-d4 | 128 (75-125) | All TCL compounds | J (all detects) | P |
| 71-S1-022 | 1,2-Dichloroethane-d4 | 127 (75-125) | All TCL compounds | J (all detects) | P |

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria.

XII. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria.

XIII. Tentatively Identified Compounds (TICs)

All tentatively identified compounds were within validation criteria.

XIV. System Performance

The system performance was within validation criteria.

XV. Overall Assessment of Data

Data flags have been summarized at the end of the report.

XVI. Field Duplicates

Samples 71-S1-019 and 71-S1-020 were identified as field duplicates. No volatiles were detected in any of the samples.

XVII. Field Blanks

Sample 71-S1-030 was identified as a trip blank. No volatile contaminants were found in this blank.

Moffett Air Field, CTO 71**Volatiles - Data Qualification Summary - SDG 04C211**

| SDG | Sample | Compound | Flag | A or P | Reason |
|--------|------------------------------------------------------------------------------------------------------|-------------------|-----------------------------------------|--------|-----------------------------|
| 04C211 | 71-S1-030 71-S1-017 71-S1-018 71-S1-023 71-S1-024 71-S1-019 71-S1-020 71-S1-022 | Carbon disulfide | J (all detects) UJ (all non-detects) | A | Continuing calibration (%D) |
| 04C211 | 71-S1-017 71-S1-019 71-S1-020 71-S1-022 | All TCL compounds | J (all detects) | P | Surrogate spikes (%R) |



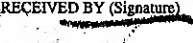
Moffett Air Field, CTO 71**Volatiles - Laboratory Blank Data Qualification Summary - SDG 04C211**

No Sample Data Qualified in this SDG



NUMBER

CHAIN-OF-CUSTODY RECORD

| | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------------------------------------------------------------------------------------------|----------------|--------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|-------------|----|---|--|--|--|--|--|-------------------------|--------------------------------|------------------------------------------------------------------|----------|--|------------|--------------------|---|-----|
| PROJECT NAME CTO 71, SITE 1, 1 ST QTR | | PURCHASE ORDER NO. 20848-TASK 21 | | ANALYSES REQUIRED | | | | | | | | | | LABORATORY NAME EMAX | | Project Information Section Do not submit to Laboratory | | | | | | |
| PROJECT LOCATION MOFFETT | | PROJECT NO. 1990-071E | | <div>LABORATORY ID PORT ARBORATORY 04 D010</div> | | | | | | | | | | | | | | | | | | |
| SAMPLER NAME Bill Cyle | | SAMPLER SIGNATURE  | | | | | | | | | | | | | | | | | | | | |
| PROJECT CONTACT Lisa Bizekowski | | AIRBILL NUMBER 840692054070 | | | | | | | | | | | | | | | | | | | | |
| SAMPLE ID | DATE COLLECTED | TIME COLLECTED | NO. OF CONTAINER | LEVEL 3 4 | T Y P E | T A T | | | | | | | | | | | COMMENTS | | LOCATION | DEPTH START END | | QC |
| 71-SI-031 | 3-2-04 | 1330 | 3 | | X | W | 10 | X | | | | | | | | | | | TRIP BLANK | - | - | TB |
| 71-SI-025 | 3-30-04 | 1405 | 10 | | X | W | 10 | X | | | | | | | | | | | W1-5 | - | - | REG |
| 71-SI-026 | 3-30-04 | 1510 | 10 | | X | W | 10 | X | | | | | | | | | | | W1-8 | - | - | REG |
| 71-SI-027 | 3-30-04 | 1540 | 10 | | X | W | 10 | X | | | | | | | | | | | W1-8 | - | - | REG |
| 71-SI-028 | 3-31-04 | 1020 | 10 | | X | W | 10 | X | | | | | | | | | | | W1-24 | - | - | REG |
| 71-SI-029 | 3-31-04 | 1110 | 10 | | X | W | 10 | X | | | | | | | | | | | W1-16 | - | - | REG |
| <div>3-31-04</div> | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | |
| RELINQUISHED BY (Signature)  | | DATE 3-31-04 | RECEIVED BY (Signature)  | | LABORATORY INSTRUCTIONS/COMMENTS DISSOLVED METALS W/EN FIVE E.P.S.A. | | | | | | | | | | SAMPLING COMMENT: Q1/04 | | | | | | | |
| COMPANY FEDEX | | TIME 1300 | COMPANY FEDEX | | | | | | | | | | | | | | | | | | | |
| RELINQUISHED BY (Signature) | | DATE | RECEIVED BY (Signature) | | COMPOSITE DESCRIPTION | | | | | | | | | | | | | | | | | |
| COMPANY | | TIME | COMPANY | | | | | | | | | | | | | | | | | | | |
| RELINQUISHED BY (Signature) | | DATE | RECEIVED BY (Signature) | | SAMPLE CONDITION UPON RECEIPT (FORM) | | | | | | | | | | Accrued \$3715 w/2 4/2/04 | | | | | | | |
| COMPANY | | TIME | COMPANY | | TEMPERATURE: SAMPLE CONTAINER: COOLER SEAL: <input type="checkbox"/> INTACT <input type="checkbox"/> BROKEN | | | | | | | | | | | | | | | | | |

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

0014569-IN



LABORATORIES, INC.

1835 W. 205th Street

Torrance, CA 90501

Tel: (310) 618-8889

Fax: (310) 618-0818

Date: 04-27-2004

EMAX Batch No.: 04D010

Attn: Lisa Bienkowski

Tetra Tech FW, Inc.

1940 E Deere Ave, Suite 200

Santa Ana CA 92705

Subject: Laboratory Report

Project: MFA, CTO 71, Site 1

Enclosed is the Laboratory report for samples received on
04/01/04. The data reported include :

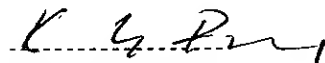
| Sample ID | Control # | Col Date | Matrix | Analysis |
|-----------|-----------|----------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 71-S1-031 | D010-01 | 03/30/04 | WATER | VOLATILE ORGANICS BY GC/MS |
| 71-S1-025 | D010-02 | 03/30/04 | WATER | VOLATILE ORGANICS BY GC/MS PESTICIDES ORGANOCHLORINE POLYCHLORINATED BIPHENYLS (PCBS) METALS BY ICP MERCURY METALS DISSOLVED BY ICP MERCURY DISSOLVED TOTAL ORGANIC CARBON NITRATE/NITRITE-N |
| 71-S1-026 | D010-03 | 03/30/04 | WATER | VOLATILE ORGANICS BY GC/MS PESTICIDES ORGANOCHLORINE POLYCHLORINATED BIPHENYLS (PCBS) METALS BY ICP MERCURY METALS DISSOLVED BY ICP MERCURY DISSOLVED TOTAL ORGANIC CARBON NITRATE/NITRITE-N |

| Sample ID | Control # | Col Date | Matrix | Analysis |
|-----------|-----------|----------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 71-S1-027 | D010-04 | 03/30/04 | WATER | VOLATILE ORGANICS BY GC/MS PESTICIDES ORGANOCHLORINE POLYCHLORINATED BIPHENYLS (PCBS) METALS BY ICP MERCURY METALS DISSOLVED BY ICP MERCURY DISSOLVED TOTAL ORGANIC CARBON NITRATE/NITRITE-N |
| 71-S1-028 | D010-05 | 03/31/04 | WATER | VOLATILE ORGANICS BY GC/MS PESTICIDES ORGANOCHLORINE POLYCHLORINATED BIPHENYLS (PCBS) METALS BY ICP MERCURY METALS DISSOLVED BY ICP MERCURY DISSOLVED TOTAL ORGANIC CARBON NITRATE/NITRITE-N |
| 71-S1-029 | D010-06 | 03/31/04 | WATER | VOLATILE ORGANICS BY GC/MS PESTICIDES ORGANOCHLORINE POLYCHLORINATED BIPHENYLS (PCBS) METALS BY ICP MERCURY METALS DISSOLVED BY ICP MERCURY DISSOLVED TOTAL ORGANIC CARBON NITRATE/NITRITE-N |

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning these results.

Sincerely yours,



Kam Y. Pang, Ph.D.
Laboratory Director

CASE NARRATIVE

CLIENT: TETRA TECH FW, INC.
PROJECT: MFA, CTO 71, SITE 1
SDG: 04D010

**SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS**

Six (6) water samples were received on 04/01/04 for Volatile Organic analysis by Method 5030B/8260B in accordance with USEPA SW846, 3rd edition.

1. Holding Time

Samples D010-02 to -04 which were labeled as acid preserved but with pH=7, were analyzed couple of hours beyond the 7-days holding time for non-preserved samples.

2. Tuning and Calibration

Tuning and calibration were carried out at 12 hours interval. All QC requirements were met.

3. Method Blank

Method blanks were free of contamination at the reporting limit.

4. Lab Control Sample/Lab Control Sample Duplicate

All recoveries were within QC limits.

5. Surrogate Recovery

Recoveries were within QC limits.

6. Matrix Spike/Matrix Spike Duplicate

No MS/MSD sample was designated in this SDG.

7. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All requirements were met with the aforementioned exception.



SW 50308/82608
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH FW, INC. Date Collected: 03/30/04
Project : MFA, CTO 71, SITE 1 Date Received: 04/01/04
Batch No. : 040010 Date Extracted: 04/06/04 22:26
Sample ID: 71-S1-031 Date Analyzed: 04/06/04 22:26
Lab Samp ID: D010-01 Dilution Factor: 1
Lab File ID: R08087 Matrix : WATER
Ext Btch ID: V003007 % Moisture : NA
Calib. Ref.: RCB248 Instrument ID : T-003

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 1,1,1,2-TETRACHLOROETHANE | ND | .5 | .2 |
| 1,1,1-TRICHLOROETHANE | ND | .5 | .2 |
| 1,1,2,2-TETRACHLOROETHANE | ND | .5 | .3 |
| 1,1,2-TRICHLOROETHANE | ND | .5 | .2 |
| 1,1-DICHLOROETHANE | ND | .5 | .2 |
| 1,2-DICHLOROETHANE | ND | .5 | .2 |
| 1,1-DICHLOROPROPENE | ND | .5 | .2 |
| 1,2,3-TRICHLOROBENZENE | ND | .5 | .2 |
| 1,2,3-TRICHLOROPROPANE | ND | .5 | .2 |
| 1,2,4-TRICHLOROBENZENE | ND | .5 | .2 |
| 1,3,4-TRIMETHYLBENZENE | ND | .5 | .2 |
| 1,2-DIBROMO-3-CHLOROPROPANE | ND | .5 | .2 |
| 1,2-DICHLOROBENZENE | ND | .5 | .2 |
| 1,2-DICHLOROETHANE | ND | .5 | .2 |
| 1,2-DICHLOROPROPANE | ND | .5 | .2 |
| 1,2-ETHYLENEDIBROMIDE | ND | .5 | .2 |
| 1,3,5-TRIMETHYLBENZENE | ND | .5 | .2 |
| 1,3-DICHLOROBENZENE | ND | .5 | .2 |
| 1,3-DICHLOROPROPANE | ND | .5 | .2 |
| 1,4-DICHLOROBENZENE | ND | .5 | .2 |
| 2,2-DICHLOROPROPANE | ND | .5 | .2 |
| 2-BUTANONE | ND | 10 | .2 |
| 2-CHLOROTOLUENE | ND | 10 | .2 |
| 2-HEXANONE | ND | 10 | .2 |
| 4-CHLOROTOLUENE | ND | 10 | .2 |
| 4-METHYL-2-PENTANONE | ND | 10 | .2 |
| ACETONE | ND | 10 | .2 |
| BENZENE | ND | .5 | .2 |
| BROMOBENZENE | ND | .5 | .2 |
| BROMOCHLOROMETHANE | ND | .5 | .2 |
| BROMODICHLOROMETHANE | ND | .5 | .2 |
| BROMOFORM | ND | .5 | .2 |
| BROMOMETHANE | ND | .5 | .2 |
| CARBON DISULFIDE | ND | .5 | .2 |
| CARBON TETRACHLORIDE | ND | .5 | .2 |
| CHLOROBENZENE | ND | .5 | .2 |
| CHLOROETHANE | ND | .5 | .2 |
| CHLOROFORM | ND | .5 | .2 |
| CHLOROMETHANE | ND | .5 | .2 |
| CIS-1,2-DICHLOROETHENE | ND | .5 | .2 |
| CIS-1,3-DICHLOROPROPENE | ND | .5 | .2 |
| DIBROMOCHLOROMETHANE | ND | .5 | .2 |
| DIBROMOMETHANE | ND | .5 | .2 |
| DICHLORODIFLUOROMETHANE | ND | .5 | .2 |
| ETHYLBENZENE | ND | .5 | .2 |
| HEXACHLOROBUTADIENE | ND | .5 | .2 |
| ISOPROPYL BENZENE | ND | .5 | .2 |
| M/P-XYLENES | ND | .5 | .2 |
| METHYLENE CHLORIDE | ND | .5 | .2 |
| N-BUTYLBENZENE | ND | .5 | .2 |
| N-PROPYLBENZENE | ND | .5 | .2 |
| NAPHTHALENE | ND | .5 | .2 |
| O-XYLENE | ND | .5 | .2 |
| P-ISOPROPYLTOLUENE | ND | .5 | .2 |
| SEC-BUTYLBENZENE | ND | .5 | .2 |
| STYRENE | ND | .5 | .2 |
| TERT-BUTYLBENZENE | ND | .5 | .2 |
| TETRACHLOROETHYLENE | ND | .5 | .2 |
| TOLUENE | ND | .5 | .2 |
| TRANS-1,2-DICHLOROETHENE | ND | .5 | .2 |
| TRANS-1,3-DICHLOROPROPENE | ND | .5 | .2 |
| TRICHLOROETHENE | ND | .5 | .2 |
| TRICHLOROFLUOROMETHANE | ND | .5 | .2 |
| VINYL CHLORIDE | ND | 10 | .2 |
| ACRYLONITRILE | ND | 10 | .2 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|-----------------------|------------|----------|
| 1,2-DICHLOROETHANE-D4 | 108 | 63-133 |
| TOLUENE-D8 | 103 | 75-125 |
| BROMOFLUOROBENZENE | 100 | 73-129 |

R.L. : Reporting limit
* : Out of QC
E : Exceeded calibration range
B : Found in associated method blank
J : Value between R.L. and MDL
D : Value from dilution analysis
D.O. : Diluted out

2004

5/17/04

SW 50308/82608
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH FW, INC. Date Collected: 03/30/04
Project : MFA, CTO 71, SITE 1 Date Received: 04/01/04
Batch No. : 040010 Date Extracted: 04/07/04 01:41
Sample ID: 71-S1-025 Date Analyzed: 04/07/04 01:41
Lab Samp ID: D010-02 Dilution Factor: 1
Lab File ID: RDB092 Matrix : WATER
Ext Btch ID: V003007 % Moisture : NA
Calib. Ref.: RCB248 Instrument ID : T-003

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 1,1,1,2-TETRACHLOROETHANE | ND | 5 | 2 |
| 1,1,1,2-TRICHLOROETHANE | ND | 5 | 2 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 5 | 2 |
| 1,1,2,2-TRICHLOROETHANE | ND | 5 | 2 |
| 1,1-DICHLOROETHANE | ND | 5 | 2 |
| 1,1-DICHLOROETHENE | ND | 5 | 2 |
| 1,1-DICHLOROPROPENE | ND | 5 | 2 |
| 1,2,3-TRICHLOROBENZENE | ND | 5 | 2 |
| 1,2,3-TRICHLOROPROPANE | ND | 5 | 2 |
| 1,2,4-TRICHLOROBENZENE | ND | 5 | 2 |
| 1,2,4-TRIMETHYLBENZENE | ND | 5 | 2 |
| 1,2-DIBROMO-3-CHLOROPROPANE | ND | 5 | 2 |
| 1,2-DICHLOROBENZENE | ND | 5 | 2 |
| 1,2-DICHLOROETHANE | ND | 5 | 2 |
| 1,2-DICHLOROPROPANE | ND | 5 | 2 |
| 1,2-ETHYLENEDIBROMIDE | ND | 5 | 2 |
| 1,3,5-TRIMETHYLBENZENE | ND | 5 | 2 |
| 1,3-DICHLOROBENZENE | ND | 5 | 2 |
| 1,3-DICHLOROPROPANE | ND | 5 | 2 |
| 1,4-DICHLOROBENZENE | ND | 5 | 2 |
| 2,2-DICHLOROPROPANE | ND | 5 | 2 |
| 2-BUTANONE | ND | 10 | 5 |
| 2-CHLOROTOLUENE | ND | 5 | 2 |
| 2-HEXANONE | ND | 10 | 5 |
| 4-CHLOROTOLUENE | ND | 5 | 2 |
| 4-METHYL-2-PENTANONE | ND | 10 | 5 |
| ACETONE | ND | 10 | 5 |
| BENZENE | ND | 5 | 2 |
| BROMOBENZENE | ND | 5 | 2 |
| BROMOCHLOROMETHANE | ND | 5 | 2 |
| BROMODICHLOROMETHANE | ND | 5 | 2 |
| BROMOFORM | ND | 5 | 2 |
| BROMOMETHANE | ND | 5 | 2 |
| CARBON DISULFIDE | ND | 5 | 2 |
| CARBON TETRACHLORIDE | ND | 5 | 2 |
| CHLOROBENZENE | ND | 5 | 2 |
| CHLOROETHANE | ND | 5 | 2 |
| CHLOROFORM | ND | 5 | 2 |
| CHLOROMETHANE | ND | 5 | 2 |
| CIS-1,2-DICHLOROETHENE | ND | 5 | 2 |
| CIS-1,3-DICHLOROPROPENE | ND | 5 | 2 |
| DIBROMOCHLOROMETHANE | ND | 5 | 2 |
| DIBROMOMETHANE | ND | 5 | 2 |
| DICHLORODIFLUOROMETHANE | ND | 5 | 2 |
| ETHYLBENZENE | ND | 5 | 2 |
| HEXACHLOROBUTADIENE | ND | 5 | 2 |
| ISOPROPYL BENZENE | ND | 5 | 2 |
| M/P-XYLENES | ND | 5 | 2 |
| METHYLENE CHLORIDE | ND | 5 | 2 |
| N-BUTYLBENZENE | ND | 5 | 2 |
| N-PROPYLBENZENE | ND | 5 | 2 |
| NAPHTHALENE | ND | 5 | 2 |
| O-XYLENE | ND | 5 | 2 |
| P-ISOPROPYLTOLUENE | ND | 5 | 2 |
| SEC-BUTYLBENZENE | ND | 5 | 2 |
| STYRENE | ND | 5 | 2 |
| TERT-BUTYLBENZENE | ND | 5 | 2 |
| TETRACHLOROETHYLENE | ND | 5 | 2 |
| TOLUENE | ND | 5 | 2 |
| TRANS-1,2-DICHLOROETHENE | ND | 5 | 2 |
| TRANS-1,3-DICHLOROPROPENE | ND | 5 | 2 |
| TRICHLOROETHENE | ND | 5 | 2 |
| TRICHLOROFLUOROMETHANE | ND | 5 | 2 |
| VINYL CHLORIDE | ND | 10 | 5 |
| ACRYLONITRILE | ND | 10 | 5 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|-----------------------|------------|----------|
| 1,2-DICHLOROETHANE-D4 | 115 | 63-132 |
| TOLUENE-D8 | 99 | 75-122 |
| BROMOFLUOROBENZENE | 97 | 73-129 |

R.L. : Reporting Limit
* : Out of QC
E : Exceeded calibration range
B : Found in associated method blank
J : Value between R.L. and MDL
D : Value from dilution analysis
D.O. : Diluted out

5/17/04

2008

SW 50308/82608
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH FW, INC.
Project : MFA, CTO 71, SITE 1
Batch No. : 040010
Sample ID: 71-S1-026
Lab Samp ID: D010-03
Lab File ID: RD8093
Ext Btch ID: V003D07
Calib. Ref.: RCB248

Date Collected: 03/30/04
Date Received: 04/01/04
Date Extracted: 04/07/04 02:20
Date Analyzed: 04/07/04 02:20
Dilution Factor: 1
Matrix : WATER
% Moisture : NA
Instrument ID : T-003

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---------------------------|-------------------|--------------|---------------|
| 1,1,1,2-TETRACHLOROETHANE | ND | 5 | 5 |
| 1,1,1-TRICHLOROETHANE | ND | 5 | 5 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 5 | 5 |
| 1,1,2-TRICHLOROETHANE | ND | 5 | 5 |
| 1,1-DICHLOROETHANE | ND | 5 | 5 |
| 1,1-DICHLOROETHENE | ND | 5 | 5 |
| 1,1-DICHLOROPROPENE | ND | 5 | 5 |
| 2,3-TRICHLOROBENZENE | ND | 5 | 5 |
| 2,3-TRICHLOROPROPANE | ND | 5 | 5 |
| 2,4-TRICHLOROBENZENE | ND | 5 | 5 |
| 2,4-TRIMETHYLBENZENE | ND | 5 | 5 |
| 2-DIBROMO-3-CHLOROPROPANE | ND | 5 | 5 |
| 2-DICHLOROBENZENE | ND | 5 | 5 |
| 2-DICHLOROETHANE | ND | 5 | 5 |
| 2-DICHLOROPROPANE | ND | 5 | 5 |
| 2-ETHYLENEDIBROMIDE | ND | 5 | 5 |
| 3,5-TRIMETHYLBENZENE | ND | 5 | 5 |
| 3-DICHLOROBENZENE | ND | 5 | 5 |
| 3-DICHLOROPROPANE | ND | 5 | 5 |
| 4-DICHLOROBENZENE | ND | 5 | 5 |
| 2,2-DICHLOROPROPANE | ND | 5 | 5 |
| 2-BUTANONE | ND | 10 | 10 |
| 2-CHLOROTOLUENE | ND | 5 | 5 |
| 2-HEXANONE | ND | 10 | 10 |
| 4-CHLOROTOLUENE | ND | 10 | 10 |
| 4-METHYL-2-PENTANONE | ND | 10 | 10 |
| ACETONE | ND | 10 | 10 |
| BENZENE | ND | 5 | 5 |
| BROMOBENZENE | ND | 5 | 5 |
| BROMOCHLOROMETHANE | ND | 5 | 5 |
| BROMODICHLOROMETHANE | ND | 5 | 5 |
| BROMOFORM | ND | 5 | 5 |
| BROMOMETHANE | ND | 5 | 5 |
| CARBON DISULFIDE | ND | 5 | 5 |
| CARBON TETRACHLORIDE | ND | 5 | 5 |
| CHLOROBENZENE | ND | 5 | 5 |
| CHLOROETHANE | ND | 5 | 5 |
| CHLOROFORM | ND | 5 | 5 |
| CHLOROMETHANE | ND | 5 | 5 |
| CIS-1,2-DICHLOROETHENE | ND | 5 | 5 |
| CIS-1,3-DICHLOROPROPENE | ND | 5 | 5 |
| DIBROMOCHLOROMETHANE | ND | 5 | 5 |
| DIBROMOMETHANE | ND | 5 | 5 |
| DICHLORODIFLUOROMETHANE | ND | 5 | 5 |
| ETHYLBENZENE | ND | 5 | 5 |
| HEXACHLOROBUTADIENE | ND | 5 | 5 |
| ISOPROPYL BENZENE | ND | 5 | 5 |
| M/P-XYLENES | ND | 5 | 5 |
| METHYLENE CHLORIDE | ND | 5 | 5 |
| N-BUTYLBENZENE | ND | 5 | 5 |
| N-PROPYLBENZENE | ND | 5 | 5 |
| NAPHTHALENE | ND | 5 | 5 |
| O-XYLENE | ND | 5 | 5 |
| P-ISOPROPYLTOLUENE | ND | 5 | 5 |
| SEC-BUTYLBENZENE | ND | 5 | 5 |
| STYRENE | ND | 5 | 5 |
| TERT-BUTYLBENZENE | ND | 5 | 5 |
| TETRACHLOROETHYLENE | ND | 5 | 5 |
| TOLUENE | ND | 5 | 5 |
| TRANS-1,2-DICHLOROETHENE | ND | 5 | 5 |
| TRANS-1,3-DICHLOROPROPENE | ND | 5 | 5 |
| TRICHLOROETHENE | ND | 5 | 5 |
| TRICHLOROFLUOROMETHANE | ND | 5 | 5 |
| VINYL CHLORIDE | ND | 10 | 10 |
| ACRYLONITRILE | ND | 10 | 10 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|-----------------------|------------|----------|
| 1,2-DICHLOROETHANE-D4 | 116 | 63-132 |
| TOLUENE-D8 | 100 | 75-122 |
| BROMOFLUOROBENZENE | 97 | 73-129 |

R.L. : Reporting Limit
* : Out of QC
E : Exceeded calibration range
B : Found in associated method blank
J : Value between R.L. and MDL
D : Value from dilution analysis
D.O. : Diluted out

5/17/04

2011

SW 50308/82608
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH FW, INC. Date Collected: 03/30/04
Project : MFA, CTO 71, SITE 1 Date Received: 04/01/04
Batch No. : 04D010 Date Extracted: 04/07/04 02:58
Sample ID: 71-S1-027 Date Analyzed: 04/07/04 02:58
Lab Samp ID: D010-04 Dilution Factor: 1
Lab File ID: RDB094 Matrix : WATER
Ext Btch ID: V003007 % Moisture : NA
Calib. Ref.: RC8248 Instrument ID : T-Q03

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---------------------------|-------------------|--------------|---------------|
| 1,1,2-TETRACHLOROETHANE | ND | 5 | 5 |
| 1,1-TRICHLOROETHANE | ND | 5 | 5 |
| 1,2,2-TETRACHLOROETHANE | ND | 5 | 5 |
| 1,2-TRICHLOROETHANE | ND | 5 | 5 |
| 1-DICHLOROETHANE | ND | 5 | 5 |
| 1-DICHLOROETHENE | ND | 5 | 5 |
| 1-DICHLOROPROPENE | ND | 5 | 5 |
| 2,3-TRICHLOROBENZENE | ND | 5 | 5 |
| 2,3-TRICHLOROPROPANE | ND | 5 | 5 |
| 2,4-TRICHLOROBENZENE | ND | 5 | 5 |
| 2,4-TRIMETHYLBENZENE | ND | 5 | 5 |
| 2-DIBROMO-3-CHLOROPROPANE | ND | 5 | 5 |
| 2-DICHLOROBENZENE | ND | 5 | 5 |
| 2-DICHLOROETHANE | ND | 5 | 5 |
| 2-DICHLOROPROPANE | ND | 5 | 5 |
| 2-ETHYLENEDIBROMIDE | ND | 5 | 5 |
| 3,5-TRIMETHYLBENZENE | ND | 5 | 5 |
| 1,3-DICHLOROBENZENE | ND | 5 | 5 |
| 1,3-DICHLOROPROPANE | ND | 5 | 5 |
| 1,4-DICHLOROBENZENE | ND | 5 | 5 |
| 2,2-DICHLOROPROPANE | ND | 5 | 5 |
| 2-BUTANONE | ND | 10 | 5 |
| 2-CHLOROTOLUENE | ND | 10 | 5 |
| 2-HEXANONE | ND | 10 | 5 |
| 4-CHLOROTOLUENE | ND | 10 | 5 |
| 4-METHYL-2-PENTANONE | ND | 10 | 5 |
| ACETONE | ND | 10 | 5 |
| BENZENE | ND | 5 | 5 |
| BROMOBENZENE | ND | 5 | 5 |
| BROMOCHLOROMETHANE | ND | 5 | 5 |
| BROMODICHLOROMETHANE | ND | 5 | 5 |
| BROMOFORM | ND | 5 | 5 |
| BROMOMETHANE | ND | 5 | 5 |
| CARBON DISULFIDE | ND | 5 | 5 |
| CARBON TETRACHLORIDE | ND | 5 | 5 |
| CHLOROBENZENE | ND | 5 | 5 |
| CHLOROETHANE | ND | 5 | 5 |
| CHLOROFORM | ND | 5 | 5 |
| CHLOROMETHANE | ND | 5 | 5 |
| CIS-1,2-DICHLOROETHENE | ND | 5 | 5 |
| CIS-1,3-DICHLOROPROPENE | ND | 5 | 5 |
| DIBROMOCHLOROMETHANE | ND | 5 | 5 |
| DIBROMOMETHANE | ND | 5 | 5 |
| DICHLORODIFLUOROMETHANE | ND | 5 | 5 |
| ETHYLBENZENE | ND | 5 | 5 |
| HEXACHLOROBTADIENE | ND | 5 | 5 |
| ISOPROPYL BENZENE | ND | 5 | 5 |
| M/P-XYLENES | ND | 5 | 5 |
| METHYLENE CHLORIDE | ND | 5 | 5 |
| N-BUTYLBENZENE | ND | 5 | 5 |
| N-PROPYLBENZENE | ND | 5 | 5 |
| NAPHTHALENE | ND | 5 | 5 |
| O-XYLENE | ND | 5 | 5 |
| P-ISOPROPYLTOLUENE | ND | 5 | 5 |
| SEC-BUTYLBENZENE | ND | 5 | 5 |
| STYRENE | ND | 5 | 5 |
| TERT-BUTYLBENZENE | ND | 5 | 5 |
| TETRACHLOROETHYLENE | ND | 5 | 5 |
| TOLUENE | ND | 5 | 5 |
| TRANS-1,2-DICHLOROETHENE | ND | 5 | 5 |
| TRANS-1,3-DICHLOROPROPENE | ND | 5 | 5 |
| TRICHLOROETHENE | ND | 5 | 5 |
| TRICHLOROFLUOROMETHANE | ND | 5 | 5 |
| VINYL CHLORIDE | ND | 10 | 5 |
| ACRYLONITRILE | ND | 10 | 5 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|-----------------------|------------|----------|
| 1,2-DICHLOROETHANE-D4 | 116 | 63-132 |
| TOLUENE-D8 | 99 | 75-122 |
| BROMOFLUOROBENZENE | 94 | 73-129 |

R.L. : Reporting limit
* : Out of QC
E : Exceeded calibration range
B : Found in associated method blank
J : Value between R.L. and MDL
D : Value from dilution analysis
D.O. : Diluted out

2014

Handwritten signature/initials

SW 50308/82608
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH FW, INC. Date Collected: 03/31/04
Project : MFA CTO 71, SITE 1 Date Received: 04/01/04
Batch No. : 040010 Date Extracted: 04/07/04 03:37
Sample ID: 71-S1-028 Date Analyzed: 04/07/04 03:37
Lab Samp ID: D010-05 Dilution Factor: 1
Lab File ID: RD8095 Matrix: WATER
Ext Btch ID: V003007 % Moisture: NA
Calib. Ref.: RCB248 Instrument ID: T-003

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 1,1,1,2-TETRACHLOROETHANE | ND | .5 | .2 |
| 1,1,1-TRICHLOROETHANE | ND | .5 | .2 |
| 1,1,2,2-TETRACHLOROETHANE | ND | .1 | .3 |
| 1,1,2-TRICHLOROETHANE | ND | .5 | .2 |
| 1,1-DICHLOROETHANE | ND | .5 | .2 |
| 1,1-DICHLOROETHENE | ND | .5 | .2 |
| 1,1-DICHLOROPROPENE | ND | .5 | .2 |
| 1,2,3-TRICHLOROBENZENE | ND | .5 | .2 |
| 1,2,3-TRICHLOROPROPANE | ND | .5 | .2 |
| 1,2,4-TRICHLOROBENZENE | ND | .5 | .2 |
| 1,2,4-TRIMETHYLBENZENE | ND | .5 | .2 |
| 1,2-DIBROMO-3-CHLOROPROPANE | ND | .5 | .2 |
| 1,2-DICHLOROBENZENE | ND | .5 | .2 |
| 1,2-DICHLOROETHANE | ND | .5 | .2 |
| 1,2-DICHLOROPROPANE | ND | .5 | .2 |
| 1,2-ETHYLENEDIBROMIDE | ND | .5 | .2 |
| 1,3,5-TRIMETHYLBENZENE | ND | .5 | .2 |
| 1,3-DICHLOROBENZENE | ND | .5 | .2 |
| 1,3-DICHLOROPROPANE | ND | .5 | .2 |
| 1,4-DICHLOROBENZENE | ND | .5 | .2 |
| 2,2-DICHLOROPROPANE | ND | .5 | .2 |
| 2-BUTANONE | ND | 10 | .1 |
| 2-CHLOROTOLUENE | ND | 10 | .1 |
| 2-HEXANONE | ND | 10 | .1 |
| 4-CHLOROTOLUENE | ND | 10 | .1 |
| 4-METHYL-2-PENTANONE | ND | 10 | .1 |
| ACETONE | ND | 10 | .1 |
| BENZENE | ND | .5 | .2 |
| BROMOBENZENE | ND | .5 | .2 |
| BROMODICHLOROMETHANE | ND | .5 | .2 |
| BROMODICHLOROMETHANE | ND | .5 | .2 |
| BROMOFORM | ND | .5 | .2 |
| BROMOMETHANE | ND | .5 | .2 |
| CARBON DISULFIDE | ND | .5 | .2 |
| CARBON TETRACHLORIDE | ND | .5 | .2 |
| CHLOROBENZENE | ND | .5 | .2 |
| CHLOROETHANE | ND | .5 | .2 |
| CHLOROFORM | ND | .5 | .2 |
| CHLOROMETHANE | ND | .5 | .2 |
| CIS-1,2-DICHLOROETHENE | ND | .5 | .2 |
| CIS-1,3-DICHLOROPROPENE | ND | .5 | .2 |
| DIBROMOCHLOROMETHANE | ND | .5 | .2 |
| DIBROMOMETHANE | ND | .5 | .2 |
| DICHLOROFLUOROMETHANE | ND | .5 | .2 |
| ETHYLBENZENE | ND | .5 | .2 |
| HEXACHLOROBUTADIENE | ND | .5 | .2 |
| ISOPROPYL BENZENE | ND | .5 | .2 |
| M/P-XYLENES | ND | .5 | .2 |
| METHYLENE CHLORIDE | ND | .5 | .2 |
| N-BUTYLBENZENE | ND | .5 | .2 |
| N-PROPYLBENZENE | ND | .5 | .2 |
| NAPHTHALENE | ND | .5 | .2 |
| O-XYLENE | ND | .5 | .2 |
| P-ISOPROPYLTOLUENE | ND | .5 | .2 |
| SEC-BUTYLBENZENE | ND | .5 | .2 |
| STYRENE | ND | .5 | .2 |
| TERT-BUTYLBENZENE | ND | .5 | .2 |
| TETRACHLOROETHYLENE | ND | .5 | .2 |
| TOLUENE | ND | .5 | .2 |
| TRANS-1,2-DICHLOROETHENE | ND | .5 | .2 |
| TRANS-1,3-DICHLOROPROPENE | ND | .5 | .2 |
| TRICHLOROETHENE | ND | .5 | .2 |
| TRICHLOROFLUOROMETHANE | ND | .5 | .2 |
| VINYL CHLORIDE | ND | 10 | .1 |
| ACRYLONITRILE | ND | 10 | .1 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|-----------------------|------------|----------|
| 1,2-DICHLOROETHANE-D4 | 117 | 63-132 |
| TOLUENE-D8 | 99 | 75-122 |
| BROMOFLUOROBENZENE | 95 | 73-129 |

R.L. : Reporting limit
* : Out of QC
E : Exceeded calibration range
B : Found in associated method blank
J : Value between R.L. and MDL
D : Value from dilution analysis
D.O. : Diluted out

5/17/04

2017

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH FW, INC. Date Collected: 03/31/04
Project : MFA CTO 71, SITE 1 Date Received: 04/01/04
Batch No. : 04D010 Date Extracted: 04/07/04 12:45
Sample ID: 71-S1-029 Date Analyzed: 04/07/04 12:45
Lab Samp ID: D010-06 Dilution Factor: 1
Lab File ID: RDB109 Matrix : WATER
Ext Btch ID: V003009 % Moisture : NA
Calib. Ref.: RCS248 Instrument ID : T-003

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 1,1,1,2-TETRACHLOROETHANE | ND | 5 | 2 |
| 1,1,1-TRICHLOROETHANE | ND | 5 | 2 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 5 | 3 |
| 1,1,2-TRICHLOROETHANE | ND | 5 | 2 |
| 1,1-DICHLOROETHANE | ND | 5 | 2 |
| 1,1-DICHLOROETHENE | ND | 5 | 2 |
| 1,1-DICHLOROPROPENE | ND | 5 | 2 |
| 1,2,3-TRICHLOROBENZENE | ND | 5 | 2 |
| 1,2,3-TRICHLOROPROPANE | ND | 5 | 2 |
| 1,2,4-TRICHLOROBENZENE | ND | 5 | 2 |
| 1,2,4-TRIMETHYLBENZENE | ND | 5 | 2 |
| 1,2-DIBROMO-3-CHLOROPROPANE | ND | 5 | 1 |
| 1,2-DICHLOROBENZENE | ND | 5 | 2 |
| 1,2-DICHLOROETHANE | ND | 5 | 2 |
| 1,2-DICHLOROPROPANE | ND | 5 | 2 |
| 1,2-ETHYLENEDIBROMIDE | ND | 5 | 2 |
| 1,2,5-TRIMETHYLBENZENE | ND | 5 | 2 |
| 1,3-DICHLOROBENZENE | ND | 5 | 2 |
| 1,3-DICHLOROPROPANE | ND | 5 | 2 |
| 1,4-DICHLOROBENZENE | ND | 5 | 2 |
| 2,2-DICHLOROPROPANE | ND | 5 | 2 |
| 2-BUTANONE | ND | 10 | 5 |
| 2-CHLOROTOLUENE | ND | 10 | 5 |
| 2-HEXANONE | ND | 10 | 5 |
| 4-CHLOROTOLUENE | ND | 10 | 5 |
| 4-METHYL-2-PENTANONE | ND | 10 | 5 |
| ACETONE | ND | 10 | 5 |
| BENZENE | ND | 5 | 2 |
| BROMOBENZENE | ND | 5 | 2 |
| BROMOCHLOROMETHANE | ND | 5 | 2 |
| BROMODICHLOROMETHANE | ND | 5 | 2 |
| BROMOFORM | ND | 5 | 2 |
| BROMOMETHANE | ND | 5 | 2 |
| CARBON DISULFIDE | ND | 5 | 2 |
| CARBON TETRACHLORIDE | ND | 5 | 2 |
| CHLOROBENZENE | ND | 5 | 2 |
| CHLOROETHANE | ND | 5 | 2 |
| CHLOROFORM | ND | 5 | 2 |
| CHLOROMETHANE | ND | 5 | 2 |
| CIS-1,2-DICHLOROETHENE | ND | 5 | 2 |
| CIS-1,3-DICHLOROPROPENE | ND | 5 | 2 |
| DIBROMOCHLOROMETHANE | ND | 5 | 2 |
| DIBROMOMETHANE | ND | 5 | 2 |
| DICHLORODIFLUOROMETHANE | ND | 5 | 2 |
| ETHYLBENZENE | ND | 5 | 2 |
| HEXACHLOROBUTADIENE | ND | 5 | 2 |
| ISOPROPYL BENZENE | ND | 5 | 2 |
| M/P-XYLENES | ND | 5 | 2 |
| METHYLENE CHLORIDE | ND | 5 | 2 |
| N-BUTYLBENZENE | ND | 5 | 2 |
| N-PROPYLBENZENE | ND | 5 | 2 |
| NAPHTHALENE | ND | 5 | 2 |
| O-XYLENE | ND | 5 | 2 |
| P-ISOPROPYLTOLUENE | ND | 5 | 2 |
| SEC-BUTYLBENZENE | ND | 5 | 2 |
| STYRENE | ND | 5 | 2 |
| TERT-BUTYLBENZENE | ND | 5 | 2 |
| TETRACHLOROETHYLENE | ND | 5 | 2 |
| TOLUENE | ND | 5 | 2 |
| TRANS-1,2-DICHLOROETHENE | ND | 5 | 2 |
| TRANS-1,3-DICHLOROPROPENE | ND | 5 | 2 |
| TRICHLOROETHENE | ND | 5 | 2 |
| TRICHLOROFLUOROMETHANE | ND | 5 | 2 |
| VINYL CHLORIDE | ND | 10 | 5 |
| ACRYLONITRILE | ND | 10 | 5 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|-----------------------|------------|----------|
| 1,2-DICHLOROETHANE-D4 | 120 | 63-132 |
| TOLUENE-DB | 96 | 75-129 |
| BROMOFLUOROBENZENE | 96 | 75-129 |

R.L. : Reporting limit
* : Out of QC
E : Exceeded calibration range
B : Found in associated method blank
J : Value between R.L. and MDL
D : Value from dilution analysis
D.O. : Diluted out

2020

9/5/17/04

CASE NARRATIVE**CLIENT: TETRA TECH FW, INC.****PROJECT: MFA, CTO 71, SITE 1****SDG: 04D010****SW3520C/8081A
PESTICIDES**

Five (5) water samples were received on 04/01/04 for Pesticides analysis by Method 3520C/8081A in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW846, 3rd ed.

1. Holding Time

Analytical holding time was met.

2. Instrument Performance and Calibration

Initial calibration was at five-point for Pesticides, all RSDs were within 20%. All continue calibrations were analyzed at 12-hour interval and mean recoveries were within 85-115%. Endrin and DDT breakdown were within QC limits.

3. Method Blank

Method blank was free of contamination at the reporting limit.

4. Surrogate Recovery

Recoveries were within QC limit.

5. Lab Control Sample

All recoveries were within QC limits.

6. Matrix Spike/Matrix Spike Duplicate

No MS/MSD sample was designated in this SDG.

7. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All QC criteria were met.

SW3520C/8081A
PESTICIDES

| | |
|-------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 03/30/04 |
| Project : MFA, CTO 71, SITE 1 | Date Received: 04/01/04 |
| Batch No. : 04D010 | Date Extracted: 04/01/04 17:00 |
| Sample ID: 71-S1-025 | Date Analyzed: 04/02/04 21:05 |
| Lab Samp ID: D010-02 | Dilution Factor: .94 |
| Lab File ID: SD02022A | Matrix : WATER |
| Ext Btch ID: CPD002W | % Moisture : NA |
| Calib. Ref.: SD02003A | Instrument ID : GCT008 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---------------------|-------------------|--------------|---------------|
| ALPHA-BHC | .059 (ND) | .047 | .0094 |
| GAMMA-BHC (LINDANE) | .011J (ND) | .047 | .0094 |
| BETA-BHC | J (.029J) 4.2 | .047 | .0094 |
| HEPTACHLOR | WJ (ND) ND | .047 | .0094 |
| DELTA-BHC | WJ (ND) .019J | .047 | .0094 |
| ALDRIN | (ND) .012J | .047 | .0094 |
| HEPTACHLOR EPOXIDE | (ND) .11 | .047 | .0094 |
| GAMMA-CHLORDANE | (ND) ND | .047 | .0094 |
| ALPHA-CHLORDANE | (ND) ND | .047 | .0094 |
| ENDOSULFAN I | (ND) ND | .047 | .028 |
| 4,4'-DDE | (ND) ND | .094 | .028 |
| DIELDRIN | (ND) ND | .094 | .019 |
| ENDRIN | (ND) ND | .094 | .019 |
| 4,4'-DDD | WJ (ND) ND | .094 | .028 |
| ENDOSULFAN II | (ND) ND | .094 | .019 |
| 4,4'-DDT | WJ (ND) ND | .094 | .019 |
| ENDRIN ALDEHYDE | (ND) ND | .094 | .019 |
| ENDOSULFAN SULFATE | (ND) ND | .094 | .019 |
| ENDRIN KETONE | WJ (ND) ND | .094 | .019 |
| METHOXYCHLOR | WJ (ND) ND | .47 | .094 |
| TOXAPHENE | (ND) ND | 2.8 | 1.2 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| TETRACHLORO-M-XYLENE | 100 (109) | 20-145 |
| DECACHLOROBIPHENYL | 76 (82) | 20-165 |

RL : Reporting limit
Left of | is related to first column ; Right of | related to second column
() included the reported column

WJ

5004

SW3520C/8081A
 PESTICIDES

| | |
|-------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 03/30/04 |
| Project : MFA, CTO 71, SITE 1 | Date Received: 04/01/04 |
| Batch No. : 04D010 | Date Extracted: 04/01/04 17:00 |
| Sample ID: 71-S1-026 | Date Analyzed: 04/02/04 21:30 |
| Lab Samp ID: D010-03 | Dilution Factor: .94 |
| Lab File ID: SD02023A | Matrix : WATER |
| Ext Btch ID: CPD002W | % Moisture : NA |
| Calib. Ref.: SDQ2003A | Instrument ID : GCT008 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---------------------|-------------------|--------------|---------------|
| ALPHA-BHC | (ND) ND | .047 | .0094 |
| GAMMA-BHC (LINDANE) | (ND) ND | .047 | .0094 |
| BETA-BHC | (ND) .035J | .047 | .0094 |
| HEPTACHLOR | .018J (ND) W | .047 | .0094 |
| DELTA-BHC | .015J (ND) W | .047 | .0094 |
| ALDRIN | (ND) ND | .047 | .0094 |
| HEPTACHLOR EPOXIDE | (ND) ND | .047 | .0094 |
| GAMMA-CHLORDANE | (ND) ND | .047 | .0094 |
| ALPHA-CHLORDANE | (ND) ND | .047 | .0094 |
| ENDOSULFAN I | (ND) ND | .047 | .028 |
| 4,4'-DDE | (ND) ND | .094 | .028 |
| DIELDRIN | (ND) ND | .094 | .019 |
| ENDRIN | (ND) ND | .094 | .019 |
| 4,4'-DDD | W (ND) ND | .094 | .028 |
| ENDOSULFAN II | W (ND) ND | .094 | .019 |
| 4,4'-DDT | W (ND) ND | .094 | .019 |
| ENDRIN ALDEHYDE | (ND) ND | .094 | .019 |
| ENDOSULFAN SULFATE | (ND) ND | .094 | .019 |
| ENDRIN KETONE | W (ND) ND | .094 | .019 |
| METHOXYCHLOR | W (ND) ND | .47 | .094 |
| TOXAPHENE | (ND) ND | 2.8 | 1.2 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| TETRACHLORO-M-XYLENE | 88 (93) | 20-145 |
| DECACHLOROBIPHENYL | 77 (83) | 20-165 |

RL : Reporting limit
 Left of | is related to first column ; Right of | related to second column
 () included the reported column

SW3520C/8081A
 PESTICIDES

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=====
Client   : TETRA TECH FW, INC.      Date Collected: 03/30/04
Project  : MFA, CTO 71, SITE 1      Date Received: 04/01/04
Batch No. : 04D010                  Date Extracted: 04/01/04 17:00
Sample ID: 71-S1-027                Date Analyzed: 04/02/04 21:55
Lab Samp ID: D010-04                Dilution Factor: .94
Lab File ID: SD02024A               Matrix       : WATER
Ext Btch ID: CPD002W                % Moisture    : NA
Calib. Ref.: SD02003A               Instrument ID : GCT008
=====
  
```

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---------------------|-------------------|--------------|---------------|
| ALPHA-BHC | (ND) ND | .047 | .0094 |
| GAMMA-BHC (LINDANE) | (ND) ND | .047 | .0094 |
| BETA-BHC | (ND) .028J | .047 | .0094 |
| HEPTACHLOR | .027J (ND) W | .047 | .0094 |
| DELTA-BHC | .012J (ND) W | .047 | .0094 |
| ALDRIN | (ND) ND | .047 | .0094 |
| HEPTACHLOR EPOXIDE | (ND) ND | .047 | .0094 |
| GAMMA-CHLORDANE | (ND) ND | .047 | .0094 |
| ALPHA-CHLORDANE | (ND) ND | .047 | .0094 |
| ENDOSULFAN I | (ND) ND | .047 | .028 |
| 4,4'-DDE | (ND) ND | .094 | .028 |
| DIELDRIN | (ND) ND | .094 | .019 |
| ENDRIN | (ND) ND | .094 | .019 |
| 4,4'-DDD | W (ND) ND | .094 | .028 |
| ENDOSULFAN II | (ND) ND | .094 | .019 |
| 4,4'-DDT | W (ND) ND | .094 | .019 |
| ENDRIN ALDEHYDE | (ND) ND | .094 | .019 |
| ENDOSULFAN SULFATE | (ND) ND | .094 | .019 |
| ENDRIN KETONE | W (ND) ND | .094 | .019 |
| METHOXYCHLOR | W (ND) ND | .47 | .094 |
| TOXAPHENE | (ND) ND | 2.8 | 1.2 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| TETRACHLORO-M-XYLENE | 89 (93) | 20-145 |
| DECACHLOROBIPHENYL | 77 (81) | 20-165 |

RL : Reporting limit
 Left of | is related to first column ; Right of | related to second column
 () included the reported column

SW3520C/8081A
 PESTICIDES

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=====
Client      : TETRA TECH FW, INC.      Date Collected: 03/31/04
Project     : MFA, CTO 71, SITE 1      Date Received: 04/01/04
Batch No.   : 04D010                  Date Extracted: 04/01/04 17:00
Sample ID: 71-S1-028                  Date Analyzed: 04/02/04 22:21
Lab Samp ID: D010-05                  Dilution Factor: .94
Lab File ID: SDO2025A                  Matrix          : WATER
Ext Btch ID: CPD002W                  % Moisture       : NA
Calib. Ref.: SDO2003A                  Instrument ID    : GCT008
=====
  
```

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---------------------|-------------------|--------------|---------------|
| ALPHA-BHC | (ND) ND | .047 | .0094 |
| GAMMA-BHC (LINDANE) | (ND) ND | .047 | .0094 |
| BETA-BHC | (ND) .037J | .047 | .0094 |
| HEPTACHLOR | .015J (ND) W | .047 | .0094 |
| DELTA-BHC | .016J (ND) W | .047 | .0094 |
| ALDRIN | (ND) ND | .047 | .0094 |
| HEPTACHLOR EPOXIDE | (ND) ND | .047 | .0094 |
| GAMMA-CHLORDANE | (ND) ND | .047 | .0094 |
| ALPHA-CHLORDANE | (ND) ND | .047 | .0094 |
| ENDOSULFAN I | (ND) ND | .047 | .028 |
| 4,4'-DDE | (ND) ND | .094 | .028 |
| DIELDRIN | (ND) ND | .094 | .019 |
| ENDRIN | (ND) ND | .094 | .019 |
| 4,4'-DDD | W (ND) ND | .094 | .028 |
| ENDOSULFAN II | (ND) ND | .094 | .019 |
| 4,4'-DDT | W (ND) ND | .094 | .019 |
| ENDRIN ALDEHYDE | (ND) ND | .094 | .019 |
| ENDOSULFAN SULFATE | (ND) ND | .094 | .019 |
| ENDRIN KETONE | W (ND) ND | .094 | .019 |
| METHOXYCHLOR | W (ND) ND | .47 | .094 |
| TOXAPHENE | (ND) ND | 2.8 | 1.2 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| TETRACHLORO-M-XYLENE | 92 (94) | 20-145 |
| DECACHLOROBIPHENYL | 77 (82) | 20-165 |

RL : Reporting limit
 Left of | is related to first column ; Right of | related to second column
 () included the reported column

152

SW3520C/8081A
PESTICIDES

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=====
Client       : TETRA TECH FW, INC.      Date Collected: 03/31/04
Project      : MFA, CTO 71, SITE 1      Date Received: 04/01/04
Batch No.    : 04D010                   Date Extracted: 04/01/04 17:00
Sample ID    : 71-S1-029                 Date Analyzed: 04/02/04 22:46
Lab Samp ID  : D010-06                   Dilution Factor: .94
Lab File ID  : SD02026A                  Matrix       : WATER
Ext Btch ID  : CPD002W                   % Moisture    : NA
Calib. Ref.  : SD02003A                  Instrument ID : GCT008
=====

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| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|----------------------|-------------------|--------------|---------------|
| ALPHA-BHC | .11 (.018J) J | .047 | .0094 |
| GAMMA-BHC (LINDANE) | .04J (ND) | .047 | .0094 |
| BETA-BHC | J (.047J) .4 | .047 | .0094 |
| HEPTACHLOR | .065 (ND) W | .047 | .0094 |
| DELTA-BHC | J (.03J) .01J | .047 | .0094 |
| ALDRIN | (ND) ND | .047 | .0094 |
| HEPTACHLOR EPOXIDE | (ND) .029J | .047 | .0094 |
| GAMMA-CHLORDANE | (ND) ND | .047 | .0094 |
| ALPHA-CHLORDANE | (ND) ND | .047 | .0094 |
| ENDOSULFAN I | (ND) ND | .047 | .028 |
| 4,4'-DDE | (ND) ND | .094 | .028 |
| DIELDRIN | (ND) ND | .094 | .019 |
| ENDRIN | (ND) ND | .094 | .019 |
| 4,4'-DDD | WJ (ND) ND | .094 | .028 |
| ENDOSULFAN II | (ND) ND | .094 | .019 |
| 4,4'-DDT | .048J (ND) W | .094 | .019 |
| ENDRIN ALDEHYDE | (ND) ND | .094 | .019 |
| ENDOSULFAN SULFATE | (ND) ND | .094 | .019 |
| ENDRIN KETONE | WJ (ND) ND | .094 | .019 |
| METHOXYCHLOR | WJ (ND) ND | .47 | .094 |
| TOXAPHENE | (ND) ND | 2.8 | 1.2 |
| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT | |
| TETRACHLORO-M-XYLENE | 101 (109) | 20-145 | |
| DECACHLOROBIPHENYL | 75 (81) | 20-165 | |

RL : Reporting limit
Left of | is related to first column ; Right of | related to second column
() included the reported column

CASE NARRATIVE

CLIENT: TETRA TECH FW, INC.
PROJECT: MFA, CTO 71, SITE 1
SDG: 04D010

SW3520C/8082
PCBs

Five (5) water samples were received on 04/01/04 for PCBs analysis by Method 3520C/8082 in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW846, 3rd ed.

1. Holding Time

Analytical holding time was met.

2. Instrument Performance and Calibration

Initial calibration was five-point for PCB-1016 and PCB-1260, all RSDs were within 20%. All continue calibrations were analyzed at 12 hour interval and all recoveries were within 85-115%.

3. Method Blank

Method blank was free of contamination at the reporting limit.

4. Surrogate Recovery

Recoveries were within QC limit.

5. Lab Control Sample

All recoveries were within QC limits.

6. Matrix Spike/Matrix Spike Duplicate

No MS/MSD sample was designated in this SDG.

7. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All QC criteria were met.

SW3520C/8082
PCBs

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=====
Client   : TETRA TECH FW, INC.      Date Collected: 03/30/04
Project  : MFA, CTO 71, SITE 1      Date Received: 04/01/04
Batch No. : 04D010                  Date Extracted: 04/01/04 17:00
Sample ID: 71-S1-025                Date Analyzed: 04/02/04 21:05
Lab Samp ID: D010-02                Dilution Factor: .94
Lab File ID: SD02022A               Matrix       : WATER
Ext Btch ID: CPD002W                % Moisture    : NA
Calib. Ref.: SD02006A              Instrument ID : GCT008
=====
```

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|------------|-------------------|--------------|---------------|
| PCB-1016 | (ND) ND | .94 | .24 .24 |
| PCB-1221 | (ND) ND | .94 | .24 .24 |
| PCB-1232 | (ND) ND | .94 | .24 .24 |
| PCB-1242 | (ND) ND | 1.9 | .24 .24 |
| PCB-1248 | (ND) ND | .94 | .24 .24 |
| PCB-1254 | (ND) ND | .94 | .24 .24 |
| PCB-1260 | (ND) ND | .94 | .24 .24 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| TETRACHLORO-M-XYLENE | (110) 101 | 20-145 |
| DECACHLOROBIPHENYL | (103) 106 | 20-165 |

RL: Reporting Limit
 Left of | is related to first column ; Right of | related to second column
 () included the reported column
 * Out side of QC Limit

15730M

5120

SW3520C/8082
 PCBs

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=====
Client      : TETRA TECH FW, INC.      Date Collected: 03/30/04
Project     : MFA, CTO 71, SITE 1      Date Received: 04/01/04
Batch No.   : 04D010                   Date Extracted: 04/01/04 17:00
Sample ID: 71-S1-Q26                   Date Analyzed: 04/02/04 21:30
Lab Samp ID: D010-03                     Dilution Factor: .94
Lab File ID: SD02023A                     Matrix      : WATER
Ext Btch ID: CPD002W                       % Moisture   : NA
Calib. Ref.: SD02006A                     Instrument ID : GCT008
=====
  
```

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|------------|-------------------|--------------|---------------|
| PCB-1016 | (ND) ND | .94 | .24 .24 |
| PCB-1221 | (ND) ND | .94 | .24 .24 |
| PCB-1232 | (ND) ND | .94 | .24 .24 |
| PCB-1242 | (ND) ND | 1.9 | .24 .24 |
| PCB-1248 | (ND) ND | .94 | .24 .24 |
| PCB-1254 | (ND) ND | .94 | .24 .24 |
| PCB-1260 | (ND) ND | .94 | .24 .24 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| TETRACHLORO-M-XYLENE | (73) 89 | 20-145 |
| DECACHLOROBIPHENYL | (104) 107 | 20-165 |

RL: Reporting Limit
 Left of | is related to first column ; Right of | related to second column
 () included the reported column
 * Out side of QC Limit

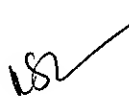
SW3520C/8082
 PCBs

| | |
|-------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 03/30/04 |
| Project : MFA, CTO 71, SITE 1 | Date Received: 04/01/04 |
| Batch No. : 04D010 | Date Extracted: 04/01/04 17:00 |
| Sample ID: 71-S1-027 | Date Analyzed: 04/02/04 21:55 |
| Lab Samp ID: D010-04 | Dilution Factor: .94 |
| Lab File ID: SDD2024A | Matrix : WATER |
| Ext Btch ID: CPD002W | % Moisture : NA |
| Calib. Ref.: SD02006A | Instrument ID : GCT008 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|------------|-------------------|--------------|---------------|
| PCB-1016 | (ND) ND | .94 | .24 .24 |
| PCB-1221 | (ND) ND | .94 | .24 .24 |
| PCB-1232 | (ND) ND | .94 | .24 .24 |
| PCB-1242 | (ND) ND | 1.9 | .24 .24 |
| PCB-1248 | (ND) ND | .94 | .24 .24 |
| PCB-1254 | (ND) ND | .94 | .24 .24 |
| PCB-1260 | (ND) ND | .94 | .24 .24 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|-------------|----------|
| TETRACHLORO-M-XYLENE | (75) 85 | 20-145 |
| DECACHLOROBIPHENYL | (103) 104 | 20-165 |

RL: Reporting Limit
 Left of | is related to first column ; Right of | related to second column
 () included the reported column
 * Out side of QC Limit



5126

SW3520C/8082
 PCBs

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=====
Client       : TETRA TECH FW, INC.      Date Collected: 03/31/04
Project      : MFA, CTO 71, SITE 1      Date Received: 04/01/04
Batch No.    : 04D010                   Date Extracted: 04/01/04 17:00
Sample ID    : 71-S1-028                 Date Analyzed: 04/02/04 22:21
Lab Samp ID  : D010-05                   Dilution Factor: .94
Lab File ID  : SD02025A                  Matrix          : WATER
Ext Btch ID  : CP0002W                   % Moisture       : NA
Calib. Ref.  : SD02006A                  Instrument ID    : GCT008
=====
  
```

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|------------|-------------------|--------------|---------------|
| PCB-1016 | (ND) ND | .94 | .24 .24 |
| PCB-1221 | (ND) ND | .94 | .24 .24 |
| PCB-1232 | (ND) ND | .94 | .24 .24 |
| PCB-1242 | (ND) ND | 1.9 | .24 .24 |
| PCB-1248 | (ND) ND | .94 | .24 .24 |
| PCB-1254 | (ND) ND | .94 | .24 .24 |
| PCB-1260 | (ND) ND | .94 | .24 .24 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|-------------|----------|
| TETRACHLORO-M-XYLENE | (76) 85 | 20-145 |
| DECACHLOROBIPHENYL | (100) 106 | 20-165 |

RL: Reporting Limit
 Left of | is related to first column ; Right of | related to second column
 () included the reported column
 * Out side of QC Limit

5129

SW3520C/8082
 PCBs

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=====
Client      : TETRA TECH FW, INC.      Date Collected: 03/31/04
Project     : MFA, CTO 71, SITE 1      Date Received: 04/01/04
Batch No.   : 040010                   Date Extracted: 04/01/04 17:00
Sample ID: 71-S1-029                   Date Analyzed: 04/02/04 22:46
Lab Samp ID: D010-06                   Dilution Factor: .94
Lab File ID: SD02026A                  Matrix       : WATER
Ext Stch ID: CPD002W                   % Moisture    : NA
Calib. Ref.: SD02006A                  Instrument ID : GCT008
=====
  
```

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|------------|-------------------|--------------|---------------|
| PCB-1016 | (ND) ND | .94 | .24 .24 |
| PCB-1221 | (ND) ND | .94 | .24 .24 |
| PCB-1232 | (ND) ND | .94 | .24 .24 |
| PCB-1242 | (ND) ND | 1.9 | .24 .24 |
| PCB-1248 | (ND) ND | .94 | .24 .24 |
| PCB-1254 | (ND) ND | .94 | .24 .24 |
| PCB-1260 | (ND) ND | .94 | .24 .24 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| TETRACHLORO-M-XYLENE | (86) 97 | 20-145 |
| DECACHLOROBIPHENYL | (102) 104 | 20-165 |

RL: Reporting Limit
 Left of | is related to first column ; Right of | related to second column
 () included the reported column
 * Out side of QC Limit



5132

CASE NARRATIVE

CLIENT: TETRA TECH FW, INC.
PROJECT: MFA, CTO 71, SITE 1
SDG: 04D010

METHOD 3010A/6010B
TOTAL AND DISSOLVED METALS BY ICP

Five (5) water samples were received on 04/01/04 for Total and Dissolved Metals analyses by Method 3010A/6010B in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW846, 3rd edition.

1. Holding Time

Analysis met holding time criteria.

2. Method Blank

Method blank was free of contamination at the reporting limit.

3. Lab Control Sample/Lab Control Sample Duplicate

Lab control results were within QC limit.

4. Serial Dilution / Post-Analytical Spike

Sample D010-02 (Total and Dissolved) were analyzed for serial dilution and post-analytical spike. All QC requirements were met.

5. Matrix Spike/Matrix Spike Duplicate

Sample D010-02 (Total and Dissolved) were spiked. All recoveries were within QC limit except Mg and Na in MS/MSD of D010-02 (Total) and Ca, Mg, K and Na in D010-02 (Dissolved) were out the limit.

6. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criteria were met with the aforementioned exception.

Samples were analyzed at DF20 for regular ICP runs and at DF10 for Trace-ICP runs due to matrix interference from high concentration level of Sodium.

METHOD 3010A/6010B
METALS BY ICP

| | |
|-------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 03/30/04 |
| Project : MFA, CTO 71, SITE 1 | Date Received: 04/01/04 |
| SDG NO. : 04D010 | Date Extracted: 04/05/04 10:30 |
| Sample ID: 71-S1-025 | Date Analyzed: 04/14/04 11:38 |
| Lab Samp ID: D010-02 | Dilution Factor: 20 |
| Lab File ID: I07D022024 | Matrix : WATER |
| Ext Btch ID: IPD010W | % Moisture : NA |
| Calib. Ref.: I07D022020 | Instrument ID : EMAXI07 |

| PARAMETERS | RESULTS (mg/L) | RL (mg/L) | MDL (mg/L) |
|------------|-------------------|--------------|---------------|
| Aluminum | 2.61J | 4 | 1.2 |
| Antimony | ND | 2 | .8 |
| Barium | .491 | .2 | .04 |
| Beryllium | ND | .2 | .02 |
| Cadmium | ND | .2 | .04 |
| Calcium | 408 | 20 | 2 |
| Chromium | ND | .4 | .1 |
| Cobalt | ND | .4 | .1 |
| Copper | ND | .2 | .1 |
| Iron | 1.65J | 20 | .6 |
| Magnesium | 1690 | 20 | 2 |
| Manganese | 1.91J | 2 | .06 |
| Nickel | ND | .4 | .2 |
| Potassium | 352 | 100 | 20 |
| Silver | ND | .4 | .1 |
| Sodium | 12400 | 20 | .5 |
| Vanadium | ND | .2 | .1 |
| Zinc | ND | .4 | .1 |

RL: Reporting Limit

51

7004

METHOD 3010A/6010B
METALS BY TRACE ICP

| | |
|-------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 03/30/04 |
| Project : MFA, CTO 71, SITE 1 | Date Received: 04/01/04 |
| SDG NO. : 04D010 | Date Extracted: 04/05/04 10:30 |
| Sample ID: 71-S1-025 | Date Analyzed: 04/26/04 19:59 |
| Lab Samp ID: D010-02 | Dilution Factor: 10 |
| Lab File ID: I31D053024 | Matrix : WATER |
| Ext Btch ID: IPD010W | % Moisture : NA |
| Calib. Ref.: I31D053020 | Instrument ID : EMAXI31 |

| PARAMETERS | RESULTS (mg/L) | RL (mg/L) | HDL (mg/L) |
|------------|-------------------|--------------|---------------|
| Arsenic | ND | .1 | .04 |
| Lead | ND | .1 | .02 |
| Selenium | ND | .1 | .05 |
| Thallium | ND | .1 | .05 |

RL: Reporting Limit

SN

7005

METHOD 3010A/6010B
METALS BY ICP

| | |
|-------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 03/30/04 |
| Project : MFA, CTO 71, SITE 1 | Date Received: 04/01/04 |
| SDG NO. : 040010 | Date Extracted: 04/05/04 10:30 |
| Sample ID: 71-S1-026 | Date Analyzed: 04/14/04 12:03 |
| Lab Samp ID: D010-03 | Dilution Factor: 20 |
| Lab File ID: I07D022029 | Matrix : WATER |
| Ext Btch ID: IP0010W | % Moisture : NA |
| Calib. Ref.: I07D022020 | Instrument ID : EMAXI07 |

| PARAMETERS | RESULTS (mg/L) | RL (mg/L) | MDL (mg/L) |
|------------|-------------------|--------------|---------------|
| Aluminum | ND | 4 | 1.2 |
| Antimony | ND | 2 | .8 |
| Barium | .117J | .2 | .04 |
| Beryllium | ND | .2 | .02 |
| Cadmium | ND | .2 | .04 |
| Calcium | 433 | 20 | 2 |
| Chromium | ND | .4 | .1 |
| Cobalt | ND | .4 | .1 |
| Copper | ND | .2 | .1 |
| Iron | .669J | 20 | .6 |
| Magnesium | 1520 | 20 | 2 |
| Manganese | 1.06J | 2 | .06 |
| Nickel | ND | .4 | .2 |
| Potassium | 409 | 100 | 20 |
| Silver | ND | .4 | .1 |
| Sodium | 12100 | 20 | .5 |
| Vanadium | ND | .2 | .1 |
| Zinc | ND | .4 | .1 |

RL: Reporting Limit

157

7006

METHOD 3010A/6010B
 METALS BY TRACE ICP

| | |
|-------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 03/30/04 |
| Project : MFA, CTO 71, SITE 1 | Date Received: 04/01/04 |
| SDG NO. : 04D010 | Date Extracted: 04/05/04 10:30 |
| Sample ID: 71-S1-026 | Date Analyzed: 04/26/04 20:27 |
| Lab Samp ID: D010-03 | Dilution Factor: 10 |
| Lab File ID: I31D053029 | Matrix : WATER |
| Ext Btch ID: IPD010W | % Moisture : NA |
| Calib. Ref.: I31D053020 | Instrument ID : EMAXT131 |

| PARAMETERS | RESULTS (mg/L) | RL (mg/L) | MDL (mg/L) |
|------------|-------------------|--------------|---------------|
| Arsenic | ND | .1 | .04 |
| Lead | ND | .1 | .02 |
| Selenium | ND | .1 | .05 |
| Thallium | ND | .1 | .05 |

RL: Reporting Limit

7007

METHOD 3010A/6010B
 METALS BY ICP

| | |
|-------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 03/30/04 |
| Project : MFA, CTO 71, SITE 1 | Date Received: 04/01/04 |
| SDG NO. : 04D010 | Date Extracted: 04/05/04 10:30 |
| Sample ID: 71-S1-027 | Date Analyzed: 04/14/04 12:07 |
| Lab Samp ID: D010-04 | Dilution Factor: 20 |
| Lab File ID: I07D022030 | Matrix : WATER |
| Ext Btch ID: IPD010W | % Moisture : NA |
| Calib. Ref.: I07D022020 | Instrument ID : EMAXT107 |

| PARAMETERS | RESULTS (mg/L) | RL (mg/L) | MDL (mg/L) |
|------------|-------------------|--------------|---------------|
| Aluminum | ND | 4 | 1.2 |
| Antimony | ND | 2 | .8 |
| Barium | .111J | .2 | .04 |
| Beryllium | ND | .2 | .02 |
| Cadmium | ND | .2 | .04 |
| Calcium | 434 | 20 | 2 |
| Chromium | ND | .4 | .1 |
| Cobalt | ND | .4 | .1 |
| Copper | ND | .2 | .1 |
| Iron | .682J | 20 | .6 |
| Magnesium | 1560 | 20 | 2 |
| Manganese | 1.05J | 2 | .06 |
| Nickel | ND | .4 | .2 |
| Potassium | 375 | 100 | 20 |
| Silver | ND | .4 | .1 |
| Sodium | 12200 | 20 | .5 |
| Vanadium | ND | .2 | .1 |
| Zinc | ND | .4 | .1 |

RL: Reporting Limit

1577

7008

METHOD 3010A/6010B
METALS BY TRACE ICP

| | |
|-------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 03/30/04 |
| Project : MFA, CTO 71, SITE 1 | Date Received: 04/01/04 |
| SDG NO. : 040010 | Date Extracted: 04/05/04 10:30 |
| Sample ID: 71-S1-027 | Date Analyzed: 04/26/04 20:32 |
| Lab Samp ID: D010-04 | Dilution Factor: 10 |
| Lab File ID: I31D053030 | Matrix : WATER |
| Ext Btch ID: IPD010W | % Moisture : NA |
| Calib. Ref.: I31D053020 | Instrument ID : EMAXTI31 |

| PARAMETERS | RESULTS (mg/L) | RL (mg/L) | MDL (mg/L) |
|------------|-------------------|--------------|---------------|
| Arsenic | ND | .1 | .04 |
| Lead | ND | .1 | .02 |
| Selenium | ND | .1 | .05 |
| Thallium | ND | .1 | .05 |

RL: Reporting Limit

1877

METHOD 3010A/6010B
 METALS BY ICP

| | |
|-------------------------------|--------------------------------|
| Client : TETRA TECH FW. INC. | Date Collected: 03/31/04 |
| Project : MFA, CTO 71, SITE 1 | Date Received: 04/01/04 |
| SDG NO. : 04D010 | Date Extracted: 04/05/04 10:30 |
| Sample ID: 71-S1-028 | Date Analyzed: 04/14/04 12:11 |
| Lab Samp ID: D010-05 | Dilution Factor: 20 |
| Lab File ID: I07D022031 | Matrix : WATER |
| Ext Btch ID: IPD010W | % Moisture : NA |
| Calib. Ref.: I07D022020 | Instrument ID : EMAXTI07 |

| PARAMETERS | RESULTS (mg/L) | RL (mg/L) | MDL (mg/L) |
|------------|-------------------|--------------|---------------|
| Aluminum | ND | 4 | 1.2 |
| Antimony | ND | 2 | .8 |
| Barium | .208 | .2 | .04 |
| Beryllium | ND | .2 | .02 |
| Cadmium | ND | .2 | .04 |
| Calcium | 364 | 20 | 2 |
| Chromium | ND | .4 | .1 |
| Cobalt | ND | .4 | .1 |
| Copper | ND | .2 | .1 |
| Iron | 15.6J | 20 | .6 |
| Magnesium | 1530 | 20 | 2 |
| Manganese | 2.05 | 2 | .06 |
| Nickel | ND | .4 | .2 |
| Potassium | 406 | 100 | 20 |
| Silver | ND | .4 | .1 |
| Sodium | 12200 | 20 | .5 |
| Vanadium | ND | .2 | .1 |
| Zinc | ND | .4 | .1 |

RL: Reporting Limit

7010

METHOD 3010A/6010B
METALS BY TRACE ICP

| | |
|-------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 03/31/04 |
| Project : WFA, CTO 71, SITE 1 | Date Received: 04/01/04 |
| SDG NO. : 04D010 | Date Extracted: 04/05/04 10:30 |
| Sample ID: 71-S1-028 | Date Analyzed: 04/26/04 20:37 |
| Lab Samp ID: D010-05 | Dilution Factor: 10 |
| Lab File ID: I31D053031 | Matrix : WATER |
| Ext Btch ID: IPD010W | % Moisture : NA |
| Calib. Ref.: I31D053020 | Instrument ID : EMAXTI31 |

| PARAMETERS | RESULTS (mg/L) | RL (mg/L) | MDL (mg/L) |
|------------|-------------------|--------------|---------------|
| ----- | ----- | ----- | ----- |
| Arsenic | ND | .1 | .04 |
| Lead | ND | .1 | .02 |
| Selenium | ND | .1 | .05 |
| Thallium | .0566J | .1 | .05 |

RL: Reporting Limit

Handwritten signature

METHOD 3010A/6010B
 METALS BY ICP

| | |
|-------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 03/31/04 |
| Project : MFA, CTO 71, SITE 1 | Date Received: 04/01/04 |
| SDG NO. : 04D010 | Date Extracted: 04/05/04 10:30 |
| Sample ID: 71-SI-029 | Date Analyzed: 04/14/04 12:27 |
| Lab Samp ID: D010-06 | Dilution Factor: 20 |
| Lab File ID: I07D022034 | Matrix : WATER |
| Ext Btch ID: IPD010W | % Moisture : NA |
| Calib. Ref.: I07D022032 | Instrument ID : EMAXTI07 |

| PARAMETERS | RESULTS (mg/L) | RL (mg/L) | MDL (mg/L) |
|------------|-------------------|--------------|---------------|
| Aluminum | ND | 4 | 1.2 |
| Antimony | ND | 2 | .8 |
| Barium | .359 | .2 | .04 |
| Beryllium | ND | .2 | .02 |
| Cadmium | ND | .2 | .04 |
| Calcium | 424 | 20 | 2 |
| Chromium | ND | .4 | .1 |
| Cobalt | ND | .4 | .1 |
| Copper | ND | .2 | .1 |
| Iron | 9.63J | 20 | .6 |
| Magnesium | 1780 | 20 | 2 |
| Manganese | 1.58J | 2 | .06 |
| Nickel | ND | .4 | .2 |
| Potassium | 494 | 100 | 20 |
| Silver | ND | .4 | .1 |
| Sodium | 14100 | 20 | .5 |
| Vanadium | ND | .2 | .1 |
| Zinc | ND | .4 | .1 |

RL: Reporting Limit

METHOD 3010A/6010B
METALS BY TRACE ICP

```

=====
Client      : TETRA TECH FW, INC.
Project     : MFA, CTO 71, SITE 1
SDG NO.     : 04D010
Sample ID   : 71-S1-029
Lab Samp ID : D010-06
Lab File ID : I31D053034
Ext Btch ID : IPD010W
Calib. Ref. : I31D053032

Date Collected: 03/31/04
Date Received: 04/01/04
Date Extracted: 04/05/04 10:30
Date Analyzed: 04/26/04 20:53
Dilution Factor: 10
Matrix       : WATER
% Moisture   : NA
Instrument ID : EMAXTI31
=====
  
```

| PARAMETERS | RESULTS (mg/L) | RL (mg/L) | MDL (mg/L) |
|------------|-------------------|--------------|---------------|
| Arsenic | ND | .1 | .04 |
| Lead | ND | .1 | .02 |
| Selenium | ND | .1 | .05 |
| Thallium | ND | .1 | .05 |

RL: Reporting Limit

120

METHOD 3010A/6010B
 DISSOLVED METALS BY ICP

| | |
|-------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 03/30/04 |
| Project : MFA, CTO 71, SITE 1 | Date Received: 04/01/04 |
| SDG NO. : 04D010 | Date Extracted: 04/05/04 10:30 |
| Sample ID: 71-S1-025 | Date Analyzed: 04/14/04 11:01 |
| Lab Samp ID: D010-D2 | Dilution Factor: 20 |
| Lab File ID: I07D022016 | Matrix : WATER |
| Ext Btch ID: IPD010W | % Moisture : NA |
| Calib. Ref.: I07D022008 | Instrument ID : EMAXI07 |

| PARAMETERS | RESULTS (mg/L) | RL (mg/L) | MDL (mg/L) |
|------------|-------------------|--------------|---------------|
| Aluminum | ND | 4 | 1.2 |
| Antimony | ND | 2 | .8 |
| Barium | .485 | .2 | .04 |
| Beryllium | ND | .2 | .02 |
| Cadmium | ND | .2 | .04 |
| Calcium | 404 | 20 | 2 |
| Chromium | ND | .4 | .1 |
| Cobalt | ND | .4 | .1 |
| Copper | ND | .2 | .1 |
| Iron | 1.8J | 20 | .6 |
| Magnesium | 1690 | 20 | 2 |
| Manganese | 1.89J | 2 | .06 |
| Nickel | ND | .4 | .2 |
| Potassium | 383 | 100 | 20 |
| Silver | ND | .4 | .1 |
| Sodium | 12500 | 20 | .5 |
| Vanadium | ND | .2 | .1 |
| Zinc | ND | .4 | .1 |

RL: Reporting Limit

7026

METHOD 3010A/6010B
DISSOLVED METALS BY TRACE ICP

| | |
|-------------------------------|--------------------------------|
| Client : TETRA TECH FW. INC. | Date Collected: 03/30/04 |
| Project : MFA, CTO 71, SITE 1 | Date Received: 04/01/04 |
| SDG NO. : 04DD10 | Date Extracted: 04/05/04 10:30 |
| Sample ID: 71-S1-025 | Date Analyzed: 04/26/04 19:17 |
| Lab Samp ID: 0010-02 | Dilution Factor: 10 |
| Lab File ID: I31D053016 | Matrix : WATER |
| Ext Btch ID: IPD010W | % Moisture : NA |
| Calib. Ref.: I31D053008 | Instrument ID : EMAXI31 |

| PARAMETERS | RESULTS (mg/L) | RL (mg/L) | HDL (mg/L) |
|------------|-------------------|--------------|---------------|
| Arsenic | ND | .1 | .04 |
| Lead | ND | .1 | .02 |
| Selenium | ND | .1 | .05 |
| Thallium | ND | .1 | .05 |

RL: Reporting Limit

18

METHOD 3010A/6010B
 DISSOLVED METALS BY ICP

| | |
|-------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 03/30/04 |
| Project : MFA, CTO 71, SITE 1 | Date Received: 04/01/04 |
| SDG NO. : 04D010 | Date Extracted: 04/05/04 10:30 |
| Sample ID: 71-S1-026 | Date Analyzed: 04/14/04 11:10 |
| Lab Samp ID: D010-03 | Dilution Factor: 20 |
| Lab File ID: I07D022018 | Matrix : WATER |
| Ext Btch ID: IPD010W | % Moisture : NA |
| Calib. Ref.: I07D022008 | Instrument ID : EMAXT107 |

| PARAMETERS | RESULTS (mg/L) | RL (mg/L) | MDL (mg/L) |
|------------|-------------------|--------------|---------------|
| Aluminum | 3.55J | 4 | 1.2 |
| Antimony | ND | 2 | .8 |
| Barium | .121J | .2 | .04 |
| Beryllium | ND | .2 | .02 |
| Cadmium | ND | .2 | .04 |
| Calcium | 433 | 20 | 2 |
| Chromium | ND | .4 | .1 |
| Cobalt | ND | .4 | .1 |
| Copper | ND | .2 | .1 |
| Iron | .836J | 20 | .6 |
| Magnesium | 1530 | 20 | 2 |
| Manganese | 1.07J | 2 | .06 |
| Nickel | ND | .4 | .2 |
| Potassium | 399 | 100 | 20 |
| Silver | ND | .4 | .1 |
| Sodium | 12200 | 20 | .5 |
| Vanadium | ND | .2 | .1 |
| Zinc | ND | .4 | .1 |

RL: Reporting Limit

7028

METHOD 3010A/6010B
DISSOLVED METALS BY ICP

```

=====
Client      : TETRA TECH FW, INC.      Date Collected: 03/30/04
Project     : MFA, CTO 71, SITE 1      Date Received: 04/01/04
SDG NO.     : 04D010                  Date Extracted: 04/05/04 10:30
Sample ID   : 71-S1-026                Date Analyzed: 04/14/04 11:10
Lab Samp ID : D010-03                  Dilution Factor: 20
Lab File ID : I07D022018               Matrix          : WATER
Ext Btch ID : IPD010W                  % Moisture      : NA
Calib. Ref.: I07D022008                Instrument ID   : EMAXTI07
=====
  
```

| PARAMETERS | RESULTS (mg/L) | RL (mg/L) | MDL (mg/L) |
|------------|-------------------|--------------|---------------|
| Aluminum* | ND | .4 | 1.2 |
| Antimony | ND | .2 | .8 |
| Barium | .121J | .2 | .04 |
| Beryllium | ND | .2 | .02 |
| Cadmium | ND | .2 | .04 |
| Calcium | 433 | 20 | 2 |
| Chromium | ND | .4 | .1 |
| Cobalt | ND | .4 | .1 |
| Copper | ND | .2 | .1 |
| Iron | .836J | 20 | .6 |
| Magnesium | 1530 | 20 | 2 |
| Manganese | 1.07J | 2 | .06 |
| Nickel | ND | .4 | .2 |
| Potassium | 399 | 100 | 20 |
| Silver | ND | .4 | .1 |
| Sodium | 12200 | 20 | .5 |
| Vanadium | ND | .2 | .1 |
| Zinc | ND | .4 | .1 |

RL: Reporting Limit

* : Aluminum was detected but was not confirmed in the Trace-ICP run and lab contamination was suspected during dilution process. The result was reported from Trace-ICP run on 04/26/04 19:27 | File ID I31D053018

Revised Report
7028

METHOD 3010A/6010B
DISSOLVED METALS BY TRACE ICP

| | |
|-------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 03/30/04 |
| Project : MFA, CTO 71, SITE 1 | Date Received: 04/01/04 |
| SDG NO. : 04D010 | Date Extracted: 04/05/04 10:30 |
| Sample ID: 71-S1-026 | Date Analyzed: 04/26/04 19:27 |
| Lab Samp ID: 0010-03 | Dilution Factor: 10 |
| Lab File ID: I31D053018 | Matrix : WATER |
| Ext Btch ID: IPD010W | % Moisture : NA |
| Calib. Ref.: I31D053008 | Instrument ID : EMAXI31 |

| PARAMETERS | RESULTS (mg/L) | RL (mg/L) | MDL (mg/L) |
|------------|-------------------|--------------|---------------|
| Arsenic | ND | .1 | .04 |
| Lead | ND | .1 | .02 |
| Selenium | ND | .1 | .05 |
| Thallium | ND | .1 | .05 |

RL: Reporting Limit

152

METHOD 3010A/6010B
 DISSOLVED METALS BY ICP

| | |
|-------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 03/30/04 |
| Project : MFA, CTO 71, SITE 1 | Date Received: 04/01/04 |
| SDG NO. : 04D010 | Date Extracted: 04/05/04 10:30 |
| Sample ID: 71-S1-027 | Date Analyzed: 04/14/04 11:14 |
| Lab Samp ID: D010-04 | Dilution Factor: 20 |
| Lab File ID: I07D022019 | Matrix : WATER |
| Ext Btch ID: IP0010W | % Moisture : NA |
| Calib. Ref.: I07D022008 | Instrument ID : EMAXT107 |

| PARAMETERS | RESULTS (mg/L) | RL (mg/L) | MDL (mg/L) |
|------------|-------------------|--------------|---------------|
| Aluminum | 18.8 | 4 | 1.2 |
| Antimony | ND | 2 | .8 |
| Barium | .164J | .2 | .04 |
| Beryllium | ND | .2 | .02 |
| Cadmium | ND | .2 | .04 |
| Calcium | 479 | 20 | 2 |
| Chromium | .107J | .4 | .1 |
| Cobalt | ND | .4 | .1 |
| Copper | ND | .2 | .1 |
| Iron | 1.45J | 20 | .6 |
| Magnesium | 1690 | 20 | 2 |
| Manganese | 1.2J | 2 | .06 |
| Nickel | ND | .4 | .2 |
| Potassium | 477 | 100 | 20 |
| Silver | ND | .4 | .1 |
| Sodium | 13400 | 20 | .5 |
| Vanadium | ND | .2 | .1 |
| Zinc | .102J | .4 | .1 |

RL: Reporting Limit

7030

METHOD 3010A/6010B
DISSOLVED METALS BY ICP

```

=====
Client   : TETRA TECH FW, INC.      Date Collected: 03/30/04
Project  : MFA, CTO 71, SITE 1      Date Received: 04/01/04
SDG NO.  : 04D010                   Date Extracted: 04/05/04 10:30
Sample ID: 71-S1-027                Date Analyzed: 04/14/04 11:14
Lab Samp ID: D010-04                Dilution Factor: 20
Lab File ID: 107D022019              Matrix       : WATER
Ext Btch ID: IPD010W                 % Moisture    : NA
Calib. Ref.: 107D022008              Instrument ID : EMAXTI07
=====
  
```

| PARAMETERS | RESULTS (mg/L) | RL (mg/L) | MDL (mg/L) |
|------------|-------------------|--------------|---------------|
| Aluminum* | ND | 4 | 1.2 |
| Antimony | ND | 2 | .8 |
| Barium | .164J | .2 | .04 |
| Beryllium | ND | .2 | .02 |
| Cadmium | ND | .2 | .04 |
| Calcium | 479 | 20 | 2 |
| Chromium | .107J | .4 | .1 |
| Cobalt | ND | .4 | .1 |
| Copper | ND | .2 | .1 |
| Iron | 1.45J | 20 | .6 |
| Magnesium | 1690 | 20 | 2 |
| Manganese | 1.2J | 2 | .06 |
| Nickel | ND | .4 | .2 |
| Potassium | 477 | 100 | 20 |
| Silver | ND | .4 | .1 |
| Sodium | 13400 | 20 | .5 |
| Vanadium | ND | .2 | .1 |
| Zinc | .102J | .4 | .1 |

RL: Reporting Limit

* : Aluminum was detected but was not confirmed in the Trace-ICP run and lab contamination was suspected during dilution process. The result was reported from Trace-ICP run on 04/26/04 19:32 | File ID 131D053019

Revised Report

7030

METHOD 3010A/6010B
DISSOLVED METALS BY TRACE ICP

| | |
|-------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 03/30/04 |
| Project : MFA, CTO 71, SITE 1 | Date Received: 04/01/04 |
| SDG NO. : 04D010 | Date Extracted: 04/05/04 10:30 |
| Sample ID: 71-S1-027 | Date Analyzed: 04/26/04 19:32 |
| Lab Samp ID: D010-04 | Dilution Factor: 10 |
| Lab File ID: I31D053019 | Matrix : WATER |
| Ext Btch ID: IPD010W | % Moisture : NA |
| Calib. Ref.: I31D053008 | Instrument ID : EMAXT131 |

| PARAMETERS | RESULTS (mg/L) | RL (mg/L) | MDL (mg/L) |
|------------|-------------------|--------------|---------------|
| ----- | ----- | ----- | ----- |
| Arsenic | ND | .1 | .04 |
| Lead | ND | .1 | .02 |
| Selenium | ND | .1 | .05 |
| Thallium | ND | .1 | .05 |

RL: Reporting Limit

15/2

7031

METHOD 3010A/6010B
DISSOLVED METALS BY ICP

| | | | |
|--------------|-----------------------|------------------|----------------|
| Client | : TETRA TECH FW, INC. | Date Collected: | 03/31/04 |
| Project | : MFA, CTD 71, SITE 1 | Date Received: | 04/01/04 |
| SDG NO. | : 04D010 | Date Extracted: | 04/05/04 10:30 |
| Sample ID: | 71-S1-028 | Date Analyzed: | 04/14/04 11:30 |
| Lab Samp ID: | D010-05 | Dilution Factor: | 20 |
| Lab File ID: | I07D022022 | Matrix | : WATER |
| Ext Btch ID: | IP0010W | % Moisture | : NA |
| Calib. Ref.: | I07D022020 | Instrument ID | : EMAXT107 |

| PARAMETERS | RESULTS (mg/L) | RL (mg/L) | MDL (mg/L) |
|------------|-------------------|--------------|---------------|
| Aluminum | 9.13 | 4 | 1.2 |
| Antimony | ND | 2 | .8 |
| Barium | .246 | .2 | .04 |
| Beryllium | ND | .2 | .02 |
| Cadmium | ND | .2 | .04 |
| Calcium | 411 | 20 | 2 |
| Chromium | ND | .4 | .1 |
| Cobalt | ND | .4 | .1 |
| Copper | ND | .2 | .1 |
| Iron | 17J | 20 | .6 |
| Magnesium | 1750 | 20 | 2 |
| Manganese | 2.28 | 2 | .06 |
| Nickel | ND | .4 | .2 |
| Potassium | 487 | 100 | 20 |
| Silver | ND | .4 | .1 |
| Sodium | 14000 | 20 | .5 |
| Vanadium | ND | .2 | .1 |
| Zinc | ND | .4 | .1 |

RL: Reporting Limit

USP

7032

METHOD 3010A/6010B
DISSOLVED METALS BY ICP

```

=====
Client      : TETRA TECH FW, INC.      Date Collected: 03/31/04
Project     : MFA, CTO 71, SITE 1      Date Received: 04/01/04
SDG NO.     : 04D010                   Date Extracted: 04/05/04 10:30
Sample ID: 71-S1-028                   Date Analyzed: 04/14/04 11:30
Lab Samp ID: D010-05                   Dilution Factor: 20
Lab File ID: I07D022022                Matrix      : WATER
Ext Btch ID: IPD010W                   % Moisture   : NA
Calib. Ref.: I07D022020                Instrument ID : EMAXTI07
=====
  
```

| PARAMETERS | RESULTS (mg/L) | RL (mg/L) | MDL (mg/L) |
|------------|-------------------|--------------|---------------|
| Aluminum* | ND | .4 | 1.2 |
| Antimony | ND | .2 | .8 |
| Barium | .246 | .2 | .04 |
| Beryllium | ND | .2 | .02 |
| Cadmium | ND | .2 | .04 |
| Calcium | 411 | 20 | 2 |
| Chromium | ND | .4 | .1 |
| Cobalt | ND | .4 | .1 |
| Copper | ND | .2 | .1 |
| Iron | 17J | 20 | .6 |
| Magnesium | 1750 | 20 | 2 |
| Manganese | 2.28 | 2 | .06 |
| Nickel | ND | .4 | .2 |
| Potassium | 487 | 100 | .20 |
| Silver | ND | .4 | .1 |
| Sodium | 14000 | 20 | .5 |
| Vanadium | ND | .2 | .1 |
| Zinc | ND | .4 | .1 |

RL: Reporting Limit

* : Aluminum was detected but was not confirmed in the Trace-ICP run and lab contamination was suspected during dilution process. The result was reported from Trace-ICP run on 04/26/04 19:48 | File ID I31D053022

Revised Report

7032

METHOD 3010A/6010B
DISSOLVED METALS BY TRACE ICP

| | |
|-------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 03/31/04 |
| Project : MFA, CTO 71, SITE 1 | Date Received: 04/01/04 |
| SDG NO. : 04D010 | Date Extracted: 04/05/04 10:30 |
| Sample ID: 71-S1-028 | Date Analyzed: 04/26/04 19:48 |
| Lab Samp ID: D010-05 | Dilution Factor: 10 |
| Lab File ID: I31D053022 | Matrix : WATER |
| Ext Btch ID: IPD010W | % Moisture : NA |
| Calib. Ref.: I31D053020 | Instrument ID : EMAXTI31 |

| PARAMETERS | RESULTS (mg/L) | RL (mg/L) | MDL (mg/L) |
|------------|-------------------|--------------|---------------|
| Arsenic | ND | .1 | .04 |
| Lead | ND | .1 | .02 |
| Selenium | ND | .1 | .05 |
| Thallium | ND | .1 | .05 |

RL: Reporting Limit

WMM

7033

METHOD 3010A/6010B
DISSOLVED METALS BY ICP

| | | | |
|--------------|-----------------------|------------------|----------------|
| Client | : TETRA TECH FW, INC. | Date Collected: | 03/31/04 |
| Project | : MFA, CTO 71, SITE 1 | Date Received: | 04/01/04 |
| SDG NO. | : 04D010 | Date Extracted: | 04/05/04 10:30 |
| Sample ID: | 71-S1-029 | Date Analyzed: | 04/14/04 11:34 |
| Lab Samp ID: | D010-06 | Dilution Factor: | 20 |
| Lab File ID: | I07D022023 | Matrix | : WATER |
| Ext Btch ID: | IPD010W | % Moisture | : NA |
| Calib. Ref.: | I07D022020 | Instrument ID | : EMAXT107 |

| PARAMETERS | RESULTS (mg/L) | RL (mg/L) | MDL (mg/L) |
|------------|-------------------|--------------|---------------|
| Aluminum | 3.8J | 4 | 1.2 |
| Antimony | ND | 2 | .8 |
| Barium | .384 | .2 | .04 |
| Beryllium | ND | .2 | .02 |
| Cadmium | ND | .2 | .04 |
| Calcium | 443 | 20 | 2 |
| Chromium | ND | .4 | .1 |
| Cobalt | ND | .4 | .1 |
| Copper | ND | .2 | .1 |
| Iron | 9.34J | 20 | .6 |
| Magnesium | 1870 | 20 | 2 |
| Manganese | 1.71J | 2 | .06 |
| Nickel | ND | .4 | .2 |
| Potassium | 530 | 100 | 20 |
| Silver | ND | .4 | .1 |
| Sodium | 14900 | 20 | .5 |
| Vanadium | ND | .2 | .1 |
| Zinc | ND | .4 | .1 |

RL: Reporting Limit

ASH

7034

METHOD 3010A/6010B
DISSOLVED METALS BY TRACE ICP

| | | | |
|--------------|-----------------------|------------------|----------------|
| Client | : TETRA TECH FW, INC. | Date Collected: | 03/31/04 |
| Project | : MFA, CTO 71, SITE 1 | Date Received: | 04/01/04 |
| SDG NO. | : 04D010 | Date Extracted: | 04/05/04 10:30 |
| Sample ID: | 71-S1-029 | Date Analyzed: | 04/26/04 19:53 |
| Lab Samp ID: | D010-06 | Dilution Factor: | 10 |
| Lab File ID: | I31D053023 | Matrix | : WATER |
| Ext Btch ID: | IPD010W | % Moisture | : NA |
| Calib. Ref.: | I31D053020 | Instrument ID | : EMAXTI31 |

| PARAMETERS | RESULTS (mg/L) | RL (mg/L) | MDL (mg/L) |
|------------|-------------------|--------------|---------------|
| Arsenic | ND | .1 | .04 |
| Lead | ND | .1 | .02 |
| Selenium | ND | .1 | .05 |
| Thallium | ND | .1 | .05 |

RL: Reporting Limit

Handwritten signature

CASE NARRATIVE

CLIENT: TETRA TECH FW, INC.

PROJECT: MFA, CTO 71, SITE 1

SDG: 04D010

**METHOD 7470A
TOTAL & DISSOLVED MERCURY BY COLD VAPOR**

Five (5) water samples were received on 04/01/04 for Total and Dissolved Mercury analyses by Method 7470A in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW846, 3rd ed.

1. Holding Time

Analysis met the holding time criteria.

2. Method Blank

Method blank was free of contamination at the reporting limit level.

3. Lab Control Sample/Lab Control Sample Duplicate

Lab control results were within the control limits.

4. Serial Dilution/Post Analytical Spike

Sample C211-03 from another SDG was analyzed for serial dilution. %Difference was not evaluated since diluted sample result was not detected. Analytical spike was performed and the QC criteria were met.

5. Matrix Spike/Matrix Spike Duplicate

No MS/MSD sample was designated in this SDG.

6. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criteria were met.

Samples were analyzed with dilution factor of 10.

METHOD 7470A
MERCURY BY COLD VAPOR

Client : TETRA TECH FM, INC.
Project : MEA, CTO 71, SITE 1
Batch No. : 04D010

Matrix : WATER
Instrument ID : T1047

| SAMPLE ID | EMAX SAMPLE ID | RESULTS (ug/L) | DLF | MOIST | RL (ug/L) | MDL (ug/L) | Analysis DATE/TIME | Extraction DATE/TIME | LFID | CAL REF | PREP BATCH | Collection DATE/TIME | Received DATE/TIME |
|-----------|-------------------|-------------------|-----|-------|--------------|---------------|-----------------------|-------------------------|------------|------------|------------|-------------------------|-----------------------|
| MBLK1W | HGD018MB | ND | 1 | NA | .5 | .25 | 04/20/0415:33 | 04/19/0416:00 | M47D017034 | M47D017032 | HGD018W | NA | 04/19/04 |
| LCS1W | HGD018ML | 5.07 | 1 | NA | .5 | .25 | 04/20/0415:35 | 04/19/0416:00 | M47D017035 | M47D017032 | HGD018W | NA | 04/19/04 |
| LCS1W | HGD018MC | 5.07 | 1 | NA | .5 | .25 | 04/20/0415:37 | 04/19/0416:00 | M47D017036 | M47D017032 | HGD018W | NA | 04/19/04 |
| 71-S1-025 | D010-02 | ND | 10 | NA | 5 | 2.5 | 04/20/0416:08 | 04/19/0416:00 | M47D017050 | M47D017044 | HGD018W | 03/30/04 | 04/01/04 |
| 71-S1-026 | D010-03 | ND | 10 | NA | 5 | 2.5 | 04/20/0416:10 | 04/19/0416:00 | M47D017051 | M47D017044 | HGD018W | 03/30/04 | 04/01/04 |
| 71-S1-027 | D010-04 | ND | 10 | NA | 5 | 2.5 | 04/20/0416:12 | 04/19/0416:00 | M47D017052 | M47D017044 | HGD018W | 03/30/04 | 04/01/04 |
| 71-S1-028 | D010-05 | ND | 10 | NA | 5 | 2.5 | 04/20/0416:14 | 04/19/0416:00 | M47D017053 | M47D017044 | HGD018W | 03/31/04 | 04/01/04 |
| 71-S1-029 | D010-06 | ND | 10 | NA | 5 | 2.5 | 04/20/0416:17 | 04/19/0416:00 | M47D017054 | M47D017044 | HGD018W | 03/31/04 | 04/01/04 |

RL: Reporting Limit

10/13/04

METHOD 7470A
DISSOLVED MERCURY BY COLD VAPOR

Client : TETRA TECH FM, INC.
Project : MFA, CTO 71, SITE 1
Batch No. : 040010

Matrix : WATER
Instrument ID : T1047

| SAMPLE ID | EMAX SAMPLE ID | RESULTS (ug/L) | DLF | MOIST | RL (ug/L) | MDL (ug/L) | Analysis DATE/TIME | Extraction DATE/TIME | LFTD | CAL REF | PREP BATCH | Collection DATE/TIME | Received DATE/TIME |
|-----------|-------------------|-------------------|-----|-------|--------------|---------------|-----------------------|-------------------------|------------|------------|------------|-------------------------|-----------------------|
| MBLK1W | HGD017MB | ND | 1 | NA | .5 | .25 | 04/20/0414:39 | 04/19/0416:00 | M47D017010 | M47D017008 | HGD017W | NA | 04/19/04 |
| LCS1W | HGD017ML | 5.16 | 1 | NA | .5 | .25 | 04/20/0414:41 | 04/19/0416:00 | M47D017011 | M47D017008 | HGD017W | NA | 04/19/04 |
| LCS1W | HGD017MC | 5.11 | 1 | NA | .5 | .25 | 04/20/0414:44 | 04/19/0416:00 | M47D017012 | M47D017008 | HGD017W | NA | 04/19/04 |
| 71-S1-025 | D010-02 | ND | 10 | NA | 5 | 2.5 | 04/20/0415:15 | 04/19/0416:00 | M47D017026 | M47D017020 | HGD017W | 03/30/04 | 04/01/04 |
| 71-S1-026 | D010-03 | ND | 10 | NA | 5 | 2.5 | 04/20/0415:17 | 04/19/0416:00 | M47D017027 | M47D017020 | HGD017W | 03/30/04 | 04/01/04 |
| 71-S1-027 | D010-04 | ND | 10 | NA | 5 | 2.5 | 04/20/0415:19 | 04/19/0416:00 | M47D017028 | M47D017020 | HGD017W | 03/30/04 | 04/01/04 |
| 71-S1-028 | D010-05 | ND | 10 | NA | 5 | 2.5 | 04/20/0415:22 | 04/19/0416:00 | M47D017029 | M47D017020 | HGD017W | 03/31/04 | 04/01/04 |
| 71-S1-029 | D010-06 | ND | 10 | NA | 5 | 2.5 | 04/20/0415:24 | 04/19/0416:00 | M47D017030 | M47D017020 | HGD017W | 03/31/04 | 04/01/04 |

RL: Reporting Limit

52

7156

CASE NARRATIVE

CLIENT: TETRA TECH FW, INC.

PROJECT: MFA, CTO 71, SITE 1

SDG: 04D010

METHOD 353.3
NITRATE/NITRITE-N

Five (5) water samples were received on 04/01/04 for Nitrate/Nitrite-N analysis by Method 353.3 in accordance with "Methods for Chemical Analysis of water and Wastewater", EPA 600/4-79-020 (1983).

1. Holding Time

Analysis met holding time criteria.

2. Method Blank

Method blank was free of contamination at the reporting limit.

3. Lab Control Sample/Lab Control Sample Duplicate

Lab control results were within QC limit.

4. Duplicate

No duplicate sample was designated in this SDG.

5. Sample Analysis

Sample analyses were performed within the QC requirements. All criteria were met.

METHOD 353.3
NITRATE/NITRITE-N

Client : TETRA TECH FW, INC.
Project : MFA, CTO 71, SITE 1
Batch No. : 040010

Matrix : WATER
Instrument ID : I70

| SAMPLE ID | EMAX SAMPLE ID | RESULTS (mg/L) | DLF | MOIST | RL (mg/L) | MDL (mg/L) | Analysis DATE/TIME | Extraction DATE/TIME | LFID | CAL REF | PREP BATCH | Collection DATE/TIME | Received DATE/TIME |
|-----------|-------------------|-------------------|-----|-------|--------------|---------------|-----------------------|-------------------------|------------|------------|------------|-------------------------|-----------------------|
| MBLK1W | NAD001WB | ND | 1 | NA | .1 | .02 | 04/09/0411:09 | NA | NAD001W-10 | NAD001W-07 | NAD001W | NA | NA |
| LCSTW | NAD001WL | .520 | 1 | NA | .1 | .02 | 04/09/0411:10 | NA | NAD001W-11 | NAD001W-07 | NAD001W | NA | NA |
| LCSTW | NAD001WC | .530 | 1 | NA | .1 | .02 | 04/09/0411:11 | NA | NAD001W-12 | NAD001W-07 | NAD001W | NA | NA |
| 71-S1-025 | D010-02R | 1.68 | 2 | NA | .1 | .02 | 04/09/0411:24 | NA | NAD001W-25 | NAD001W-19 | NAD001W | 03/30/04 | 04/01/04 |
| 71-S1-026 | D010-03R | 2.95 | 4 | NA | .1 | .02 | 04/09/0411:26 | NA | NAD001W-27 | NAD001W-19 | NAD001W | 03/30/04 | 04/01/04 |
| 71-S1-027 | D010-04R | 2.99 | 4 | NA | .1 | .02 | 04/09/0411:28 | NA | NAD001W-29 | NAD001W-19 | NAD001W | 03/30/04 | 04/01/04 |
| 71-S1-028 | D010-05 | .215 | 1 | NA | .1 | .02 | 04/09/0411:29 | NA | NAD001W-30 | NAD001W-19 | NAD001W | 03/31/04 | 04/01/04 |
| 71-S1-029 | D010-06 | ND | 1 | NA | .1 | .02 | 04/09/0411:32 | NA | NAD001W-33 | NAD001W-31 | NAD001W | 03/31/04 | 04/01/04 |

MS

8002

CASE NARRATIVE

CLIENT: TETRA TECH FW, INC.
PROJECT: MFA, CTO 71, SITE 1
SDG: 04D010

**METHOD 415.1
TOC**

Five (5) water samples were received on 04/01/04 for Total Organic Carbon analysis by Method 415.1 in accordance with "Methods for Chemical Analysis of Water and Wastewater", EPA 600/4-79-020 (1983).

1. Holding Time
Analysis met holding time criteria.
2. Method Blank
Method blanks were free of contamination at reporting limit.
3. Lab Control Sample/Lab Control Sample Duplicate
Lab control results were within QC limit.
4. Duplicate
Sample D010-06 was analyzed for duplicate. %RPD was within QC limit.
5. Matrix Spike
Sample D010-06 was spiked. %Recovery was within QC limit.
6. Sample Analysis
Sample analysis was performed within the QC requirements. All criteria were met.

METHOD 415.1
TOC

Client : TETRA TECH FW, INC.
Project : MFA, CTO 71, SITE 1
Batch No. : 040010
Matrix : WATER
Instrument ID : 162

| SAMPLE ID | EMAX SAMPLE ID | RESULTS (mg/L) | DLF | MOIST | RL (mg/L) | MDL (mg/L) | Analysis DATE/TIME | Extraction DATE/TIME | LFID | CAL | REF | PREP | BATCH | Collection DATE/TIME | Received DATE/TIME |
|--------------|-------------------|-------------------|-----|-------|--------------|---------------|-----------------------|-------------------------|-----------|-----------|---------|---------|----------|-------------------------|-----------------------|
| MBLK1W | TC0002WB | ND | 1 | NA | 5 | 1 | 04/12/04 10:28 | NA | TC0012-5 | TC0012-2 | TC0002W | TC0002W | NA | NA | NA |
| LCS1W | TC0002WL | 34.4 | 1 | NA | 5 | 1 | 04/12/04 10:39 | NA | TC0012-6 | TC0012-2 | TC0002W | TC0002W | NA | NA | NA |
| LCS1W | TC0002WC | 30.8 | 1 | NA | 5 | 1 | 04/12/04 10:49 | NA | TC0012-7 | TC0012-2 | TC0002W | TC0002W | NA | NA | NA |
| 71-S1-025 | D010-02 | 11.3 | 1 | NA | 5 | 1 | 04/12/04 15:29 | NA | TC0012-34 | TC0012-26 | TC0002W | TC0002W | 03/30/04 | 04/01/04 | 04/01/04 |
| 71-S1-026 | D010-03 | 10.0 | 1 | NA | 5 | 1 | 04/12/04 15:39 | NA | TC0012-35 | TC0012-26 | TC0002W | TC0002W | 03/30/04 | 04/01/04 | 04/01/04 |
| MBLK2W | TC0003WB | ND | 1 | NA | 5 | 1 | 04/12/04 15:49 | NA | TC0012-36 | TC0012-26 | TC0003W | TC0003W | NA | NA | NA |
| LCS2W | TC0003WL | 33.5 | 1 | NA | 5 | 1 | 04/12/04 15:59 | NA | TC0012-37 | TC0012-26 | TC0003W | TC0003W | NA | NA | NA |
| 71-S1-027 | D010-04 | 10.0 | 1 | NA | 5 | 1 | 04/12/04 16:30 | NA | TC0012-40 | TC0012-38 | TC0003W | TC0003W | 03/30/04 | 04/01/04 | 04/01/04 |
| 71-S1-028 | D010-05 | 22.0 | 1 | NA | 5 | 1 | 04/12/04 16:41 | NA | TC0012-41 | TC0012-38 | TC0003W | TC0003W | 03/31/04 | 04/01/04 | 04/01/04 |
| 71-S1-029 | D010-06 | 18.0 | 1 | NA | 5 | 1 | 04/12/04 16:51 | NA | TC0012-42 | TC0012-38 | TC0003W | TC0003W | 03/31/04 | 04/01/04 | 04/01/04 |
| 71-S1-0290UP | D010-06D | 17.9 | 1 | NA | 5 | 1 | 04/12/04 17:01 | NA | TC0012-43 | TC0012-38 | TC0003W | TC0003W | 03/31/04 | 04/01/04 | 04/01/04 |
| 71-S1-029WS | D010-06M | 41.6 | 1 | NA | 5 | 1 | 04/12/04 17:12 | NA | TC0012-44 | TC0012-38 | TC0003W | TC0003W | 03/31/04 | 04/01/04 | 04/01/04 |

RL : Reporting Limit

asm

8008

**Laboratory Data Consultants, Inc.
Data Validation Report**

Project/Site Name: Moffett Air Field, CTO 71
Collection Date: March 30 through March 31, 2004
LDC Report Date: May 6, 2004
Matrix: Water
Parameters: Wet Chemistry
Validation Level: EPA Level III
Laboratory: EMAX Laboratories, Inc.
Sample Delivery Group (SDG): 04D010

Sample Identification

71-S1-025
71-S1-026
71-S1-027
71-S1-028
71-S1-029
71-S1-029MS
71-S1-029DUP

Introduction

This data review covers 7 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA Method 353.3 for Nitrate/Nitrite as Nitrogen, and EPA Method 415.1 for Total Organic Carbon.

The review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (February 1994) as there are no current guidelines for the methods stated above.

A table summarizing all data qualification is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section III.

Field duplicates are summarized in Section IX.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

a. Initial Calibration

All criteria for the initial calibration of each method were met.

b. Calibration Verification

Calibration verification frequency and analysis criteria were met for each method when applicable.

III. Blanks

Method blanks were reviewed for each matrix as applicable. No contaminant concentrations were found in the method blanks.

IV. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) analyses were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

V. Duplicates

Duplicate (DUP) sample analyses were reviewed for each matrix as applicable. Results were within QC limits.

VI. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VII. Sample Result Verification

Raw data were not reviewed for this SDG.

VIII. Overall Assessment of Data

Data flags are summarized at the end of this report.

IX. Field Duplicates

Samples 71-S1-026 and 71-S1-027 were identified as field duplicates. No contaminant concentrations were detected in any of the samples with the following exceptions:

| Analyte | Concentration (mg/L) | | RPD |
|----------------------|----------------------|-----------|-----|
| | 71-S1-026 | 71-S1-027 | |
| Nitrate/Nitrite as N | 2.95 | 2.99 | 1 |
| Total organic carbon | 10.0 | 10.0 | 0 |

X. Field Blanks

No field blanks were identified in this SDG.

Moffett Air Field, CTO 71

Wet Chemistry - Data Qualification Summary - SDG 04D010

No Sample Data Qualified in this SDG

Moffett Air Field, CTO 71

Wet Chemistry - Laboratory Blank Data Qualification Summary - SDG 04D010

No Sample Data Qualified in this SDG

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Moffett Airfield, CTO 71
Collection Date: March 30 through March 31, 2004
LDC Report Date: May 6, 2004
Matrix: Water
Parameters: Metals
Validation Level: EPA Level IV
Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 04D010

Sample Identification

71-S1-025
71-S1-026
71-S1-027
71-S1-028
71-S1-029
71-S1-025F
71-S1-026F
71-S1-027F
71-S1-028F
71-S1-029F
71-S1-025MS
71-S1-025MSD
71-S1-025FMS
71-S1-025FMSD

Sample IDs ending in "F" were analyzed for dissolved metals

Introduction

This data review covers 14 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Methods 6010B and 7000 for Metals. The metals analyzed were Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, and Zinc.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (February 1994) as there are no current guidelines for the method stated above.

A table summarizing all data qualification flags is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from specified protocols or is of technical advisory nature.

Blanks are summarized in Section III.

Field duplicates are summarized in Section XIII.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

An initial calibration was performed.

The frequency and analysis criteria of the initial calibration verification (ICV) and continuing calibration verification (CCV) were met.

III. Blanks

Method blanks were reviewed for each matrix as applicable.

Data qualification by the initial, continuing and preparation blanks (ICB/CCB/PBs) was based on the maximum contaminant concentration in the ICB/CCB/PBs in the analysis of each analyte. No contaminant concentrations were found in the initial, continuing and preparation blanks with the following exceptions:

| Method Blank ID | Analyte | Maximum Concentration | Associated Samples |
|-----------------|-----------------------------------|------------------------|---------------------------|
| PB (prep blank) | Potassium (20x) | 1.34 mg/L | All samples in SDG 04D010 |
| ICB/CCB | Potassium (20x) Thallium (10x) | 1619 ug/L 5.22 ug/L | All samples in SDG 04D010 |

Sample concentrations were compared to the maximum contaminant concentrations detected in the ICB/CCB/PBs. The sample concentrations were either not detected or were significantly greater (>5X blank contaminants) than the concentrations found in the associated method blanks with the following exceptions:

| Sample | Analyte | Reported Concentration | Modified Final Concentration |
|-----------|----------|------------------------|------------------------------|
| 71-S1-028 | Thallium | 0.0566 mg/L | 0.0566U mg/L |

IV. ICP Interference Check Sample (ICS) Analysis

The frequency of analysis was met.

The criteria for analysis were met.

V. Matrix Spike Analysis

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VI. Duplicate Sample Analysis

The laboratory has indicated that there were no duplicate (DUP) analyses specified for the samples in this SDG, and therefore duplicate analyses were not performed for this SDG.

VII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Internal Standards

ICP-MS was not utilized in this SDG.

IX. Furnace Atomic Absorption QC

Graphite furnace atomic absorption was not utilized in this SDG.

X. ICP Serial Dilution

Although ICP serial dilution analysis was not required by the method, it was performed by the laboratory. The analysis criteria were met.

XI. Sample Result Verification

All sample result verifications met validation criteria for samples.

The concentration results for the dissolved metal sample was greater than the total metal sample as follows:

| Analyte | Concentration (mg/L) | |
|-----------|----------------------|------------|
| | 71-S1-027 | 71-S1-027F |
| Aluminum | 4U | 18.8 |
| Potassium | 375 | 477 |

| Analyte | Concentration (mg/L) | |
|----------|----------------------|------------|
| | 71-S1-028 | 71-S1-028F |
| Aluminum | 4U | 9.13 |

XII. Overall Assessment of Data

Data flags have been summarized at the end of this report.

XIII. Field Duplicates

Samples 71-S1-026 and 71-S1-027 and samples 71-S1-026F and 71-S1-027F were identified as field duplicates. No metals were detected in any of the samples with the following exceptions:

| Analyte | Concentration (mg/L) | | RPD |
|-----------|----------------------|-----------|-----|
| | 71-S1-026 | 71-S1-027 | |
| Barium | 0.117 | 0.111 | 5 |
| Calcium | 433 | 434 | 0 |
| Iron | 0.669 | 0.682 | 2 |
| Magnesium | 1520 | 1560 | 3 |
| Manganese | 1.06 | 1.05 | 1 |
| Potassium | 409 | 375 | 9 |
| Sodium | 12100 | 12200 | 1 |

| Analyte | Concentration (mg/L) | | RPD |
|----------|----------------------|------------|----------------|
| | 71-S1-026F | 71-S1-027F | |
| Aluminum | 3.55 | 18.8 | 136 |
| Barium | 0.121 | 0.164 | 30 |
| Calcium | 433 | 479 | 10 |
| Chromium | 0.4U | 0.107 | Not calculable |
| Iron | 0.836 | 1.45 | 54 |

| Analyte | Concentration (mg/L) | | RPD |
|-----------|----------------------|------------|----------------|
| | 71-S1-026F | 71-S1-027F | |
| Magnesium | 1530 | 1690 | 10 |
| Manganese | 1.07 | 1.2 | 11 |
| Potassium | 399 | 477 | 18 |
| Sodium | 12200 | 13400 | 9 |
| Zinc | 0.4U | 0.102 | Not calculable |

XIV. Field Blanks

No field blanks were identified in this SDG.

Moffett Airfield, CTO 71

Metals - Data Qualification Summary - SDG 04D010

No Sample Data Qualified in this SDG

Moffett Airfield, CTO 71

Metals - Laboratory Blank Data Qualification Summary - SDG 04D010

| SDG | Sample | Analyte | Modified Final Concentration | A or P |
|--------|-----------|----------|------------------------------|--------|
| 04D010 | 71-S1-028 | Thallium | 0.0566U mg/L | A |

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Moffett Airfield, CTO 71
Collection Date: March 30 through March 31, 2004
LDC Report Date: May 7, 2004
Matrix: Water
Parameters: Polychlorinated Biphenyls
Validation Level: EPA Level IV
Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 04D010

Sample Identification

71-S1-025
71-S1-026
71-S1-027
71-S1-028
71-S1-029

Introduction

This data review covers 5 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8082 for Polychlorinated Biphenyls.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification flags is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XIV.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/ECD Instrument Performance Check

Instrument performance was acceptable unless noted otherwise under initial calibration and continuing calibration sections.

III. Initial Calibration

Initial calibration of multicomponent compounds was performed for the primary (quantitation) column as required by the method.

The percent relative standard deviations (%RSD) were less than or equal to 20.0% for all compounds.

Retention time windows were evaluated and considered technically acceptable.

IV. Continuing Calibration

Continuing calibration was performed at required frequencies.

The percent differences (%D) of calibration factors in continuing standard mixtures were within the 15.0% QC limits.

Initial calibration verification (ICV) percent differences (%D) were less than or equal to 20.0% for all compounds.

Retention times (RT) of all compounds in the calibration standards were within QC limits.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No polychlorinated biphenyl contaminants were found in the method blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Pesticide Cleanup Checks

a. Florisil Cartridge Check

Florisil cleanup was not required and therefore not performed in this SDG.

b. GPC Calibration

GPC cleanup was not required and therefore not performed in this SDG.

XI. Target Compound Identification

All target compound identifications were within validation criteria.

XII. Compound Quantitation and Reported CRQLs

All compound quantitation and CRQLs were within validation criteria.

XIII. Overall Assessment of Data

Data flags are summarized at the end of this report.

XIV. Field Duplicates

Samples 71-S1-026 and 71-S1-027 were identified as field duplicates. No polychlorinated biphenyls were detected in any of the samples.

XV. Field Blanks

No field blanks were identified in this SDG.

Moffett Airfield, CTO 71

Polychlorinated Biphenyls - Data Qualification Summary - SDG 04D010

No Sample Data Qualified in this SDG

Moffett Airfield, CTO 71

Polychlorinated Biphenyls - Laboratory Blank Data Qualification Summary - SDG 04D010

No Sample Data Qualified in this SDG

**Laboratory Data Consultants, Inc.
Data Validation Report**

Project/Site Name: Moffett Airfield, CTO 71
Collection Date: March 30 through March 31, 2004
LDC Report Date: May 10, 2004
Matrix: Water
Parameters: Chlorinated Pesticides
Validation Level: EPA Level IV
Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 04D010

Sample Identification

71-S1-025
71-S1-026
71-S1-027
71-S1-028
71-S1-029

Introduction

This data review covers 5 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8081A for Chlorinated Pesticides.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification flags is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XIV.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/ECD Instrument Performance Check

Instrument performance was acceptable unless noted otherwise under initial calibration and continuing calibration sections.

III. Initial Calibration

Initial calibration of single and multicomponent compounds was performed for the primary (quantitation) column and confirmation column as required by this method.

The percent relative standard deviations (%RSD) were less than or equal to 20.0% for all compounds.

Retention time windows were evaluated and considered technically acceptable.

IV. Continuing Calibration

Continuing calibration was performed at required frequencies.

The percent differences (%D) of calibration factors in continuing standard mixtures were within the 15.0% QC limits with the following exceptions:

| Date | Standard | Column | Compound | %D | Associated Samples | Flag | A or P |
|--------|----------|--------------|---------------------------------------------------------------------|----------------------------|------------------------------|-----------------------------------------|--------|
| 4/2/04 | SD02004A | RTX-CLPEST | Heptachlor 4,4'-DDD 4,4'-DDT Methoxychlor Endrin ketone | 17 17 31 33 16 | All samples in SDG 04D010 | J (all detects) UJ (all non-detects) | A |
| 4/2/04 | SD02004A | RTX-CLPESTII | delta-BHC 4,4'-DDT Methoxychlor | 18 17 17 | All samples in SDG 04D010 | J (all detects) UJ (all non-detects) | A |

Retention times (RT) of all compounds in the calibration standards were within QC limits.

The percent difference (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

The individual 4,4'-DDT and Endrin breakdowns were less than or equal to 15.0% .

V. Blanks

Method blanks were reviewed for each matrix as applicable. No chlorinated pesticide contaminants were found in the method blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Pesticide Cleanup Checks

a. Florisil Cartridge Check

Florisil cleanup was not required and therefore not performed in this SDG.

b. GPC Calibration

GPC cleanup was not required and therefore not performed in this SDG.

XI. Target Compound Identification

All target compound identifications were within validation criteria.

XII. Compound Quantitation and Reported CRQLs

All compound quantitation and CRQLs were within validation criteria.

The sample results for detected compounds from the two columns were within 40.0% relative percent differences (RPD) with the following exceptions:

| Sample | Compound | %RPD | Flag | A or P |
|-----------|------------------------------------|------------------|-------------------------------------------------------|--------|
| 71-S1-025 | beta-BHC | 197 | J (all detects) | A |
| 71-S1-029 | alpha-BHC beta-BHC delta-BHC | 144 158 99 | J (all detects) J (all detects) J (all detects) | A |

XIII. Overall Assessment of Data

Data flags are summarized at the end of this report.

XIV. Field Duplicates

Samples 71-S1-026 and 71-S1-027 were identified as field duplicates. No chlorinated pesticides were detected in any of the samples.

XV. Field Blanks

No field blanks were identified in this SDG.

Moffett Airfield, CTO 71**Chlorinated Pesticides - Data Qualification Summary - SDG 04D010**

| SDG | Sample | Compound | Flag | A or P | Reason |
|--------|---------------------------------------------------------------|----------------------------------------------------------------------------------|-------------------------------------------------------|--------|--------------------------------------|
| 04D010 | 71-S1-025 71-S1-026 71-S1-027 71-S1-028 71-S1-029 | Heptachlor 4,4'-DDD 4,4'-DDT Methoxychlor Endrin ketone delta-BHC | J (all detects) UJ (all non-detects) | A | Continuing calibration (%D) |
| 04D010 | 71-S1-025 | beta-BHC | J (all detects) | A | Compound quantitation and CRQLs (%D) |
| 04D010 | 71-S1-029 | alpha-BHC beta-BHC delta-BHC | J (all detects) J (all detects) J (all detects) | A | Compound quantitation and CRQLs (%D) |

Moffett Airfield, CTO 71**Chlorinated Pesticides - Laboratory Blank Data Qualification Summary - SDG 04D010**

No Sample Data Qualified in this SDG

**Laboratory Data Consultants, Inc.
Data Validation Report**

Project/Site Name: Moffett Air Field, CTO 71
Collection Date: March 30 through March 31, 2004
LDC Report Date: May 10, 2004
Matrix: Water
Parameters: Volatiles
Validation Level: EPA Level IV
Laboratory: EMAX Laboratories, Inc.
Sample Delivery Group (SDG): 04D010

Sample Identification

71-S1-031
71-S1-025
71-S1-026
71-S1-027
71-S1-028
71-S1-029

Introduction

This data review covers 6 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8260B for Volatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XVI.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UU Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

All samples were received in good condition with the following exceptions:

| Sample | Compound | Finding | Criteria | Flag | A or P |
|-------------------------------------|-------------------|-------------------------------------------------------------|--------------------------------------------------------|-----------------------------------------|--------|
| 71-S1-025 71-S1-026 71-S1-027 | All TCL compounds | A headspace of >6 mm was apparent in the sample containers. | There should be no headspace in the sample containers. | J (all detects) UJ (all non-detects) | A |

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

For selected compounds the mean percent relative standard deviation (%RSD) was less than or equal to 15.0% and less than or equal to 30.0% for individual compounds.

A curve fit, based on the initial calibration, was established for quantitation for selected compounds. The coefficient of determination (r^2) was greater than or equal to 0.990 .

Average relative response factors (RRF) for all system performance check compounds (SPCCs) were within method criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

The mean percent difference (%D) between the initial calibration RRF and the continuing calibration RRF was less than or equal to 20.0% and less than or equal to 25.0% for individual compounds.

For the purposes of technical evaluation, all compounds were evaluated against the 25.0% (%D) National Functional Guideline criteria. Unless noted above, all compounds were within the validation criteria with the following exceptions:

| Date | Compound | %D | Associated Samples | Flag | A or P |
|--------|------------------|------|-------------------------------------------------------------------------|-----------------------------------------|--------|
| 4/6/04 | Carbon disulfide | 36.6 | 71-S1-031 71-S1-025 71-S1-026 71-S1-027 71-S1-028 MBLKW1 | J (all detects) UJ (all non-detects) | A |

The percent difference (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

All of the continuing calibration RRF values for all system performance check compounds (SPCCs) were within method and validation criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No volatile contaminants were found in the method blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria.

XII. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria.

XIII. Tentatively Identified Compounds (TICs)

All tentatively identified compounds were within validation criteria.

XIV. System Performance

The system performance was within validation criteria.

XV. Overall Assessment of Data

Data flags have been summarized at the end of the report.

XVI. Field Duplicates

Samples 71-S1-026 and 71-S1-027 were identified as field duplicates. No volatiles were detected in any of the samples.

XVII. Field Blanks

Sample 71-S1-031 was identified as a trip blank. No volatile contaminants were found in this blank.

Moffett Air Field, CTO 71**Volatiles - Data Qualification Summary - SDG 04D010**

| SDG | Sample | Compound | Flag | A or P | Reason |
|--------|---------------------------------------------------------------|-------------------|-----------------------------------------|--------|--------------------------------|
| 04D010 | 71-S1-025 71-S1-026 71-S1-027 | All TCL compounds | J (all detects) UJ (all non-detects) | A | Sample condition |
| 04D010 | 71-S1-031 71-S1-025 71-S1-026 71-S1-027 71-S1-028 | Carbon disulfide | J (all detects) UJ (all non-detects) | A | Continuing calibration (%D) |

Moffett Air Field, CTO 71**Volatiles - Laboratory Blank Data Qualification Summary - SDG 04D010**

No Sample Data Qualified in this SDG

MAY 2004

CHAIN-OF-CUSTODY RECORD

| PROJECT NAME CTO-86-Site 1-2nd Qtr. | | PURCHASE ORDER NO. 20848 Task 28 | | ANALYSES REQUIRED | | | | | | | | | | LABORATORY NAME emax | | Project Information Section Do not submit to Laboratory | | | | | | | | |
|---------------------------------------------------|----------------|-----------------------------------------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|-----|---|---|---|---|---|------------------------------------------------------------------|---|------------------------------------------------------------------|----------|-----------------|-------|-----|-----|-------------------------------------------------------------------|--|--|
| PROJECT LOCATION Moffett | | PROJECT NO. 1990.0866 | | <div style="display: flex; justify-content: space-between;"> <div>epa 8260B extended list</div> <div>epa 8270A extended list</div> <div>epa 8081A extended list</div> <div>epa 8082 extended list</div> <div>epa 200.8 D. Metals</div> <div>epa 7470A D. Mercury</div> </div> | | | | | | | | | | LABORATORY ID (FOR LABORATORY) 046228 (K2403893-metals) | | | | | | | | | | |
| SAMPLER NAME D. Harrison | | SAMPLER SIGNATURE <i>[Signature]</i> | | | | | | | | | | | | | | | | | | | | | | |
| PROJECT CONTACT Lisa Bienkowsk | | AIRBILL NUMBER | | | | | | | | | | | | | | | | | | | | | | |
| SAMPLE ID | DATE COLLECTED | TIME COLLECTED | NO. OF CONTAINER | LEVEL | | TYPE | T | A | T | T | T | T | T | T | T | T | COMMENTS | LOCATION | DEPTH | | QC | | | |
| | | | | 3 | 4 | | | | | | | | | | | | | | START | END | | | | |
| 86-S1-001 | 5/24/04 | 1305 | 11 | X | | W | 10 | day | X | X | X | X | X | X | X | X | | W1-1 | | | Reg | | | |
| 86-S1-014 | 5/24/04 | 1315 | 3 | X | | W | 10 | day | X | X | X | X | X | X | X | X | | Trip Blank | | | TB | | | |
| 86-S1-002 | 5/24/04 | 1320 | 11 | | X | W | 10 | day | X | X | X | X | X | X | X | X | W1-1 | Field Duplicate | | | FD | | | |
| 86-S1-003 | 5/24/04 | 1410 | 11 | X | | W | 10 | day | X | X | X | X | X | X | X | X | | W1-15 | | | Reg | | | |
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| RELINQUISHED BY (Signature) <i>[Signature]</i> | | DATE 5/25/04 | | RECEIVED BY (Signature) <i>[Signature]</i> | | LABORATORY INSTRUCTIONS/COMMENTS Metals + Mercury were field filtered | | | | | | | | | | | | | | | | SAMPLING COMMENT: Site 1 2nd Q1 /04 Q2/04 | | |
| COMPANY Tetra Tech | | TIME 1300 | | COMPANY | | | | | | | | | | | | | | | | | | | | |
| RELINQUISHED BY (Signature) | | DATE | | RECEIVED BY (Signature) | | COMPOSITE DESCRIPTION | | | | | | | | | | | | | | | | | | |
| COMPANY | | TIME | | COMPANY | | | | | | | | | | | | | | | | | | | | |
| RELINQUISHED BY (Signature) | | DATE | | RECEIVED BY (Signature) | | SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY) | | | | | | | | | | | | | | | | | | |
| COMPANY | | TIME | | COMPANY | | TEMPERATURE: _____ SAMPLE CONDITION: <input type="checkbox"/> INTACT <input type="checkbox"/> BROKEN COOLER SEAL: <input type="checkbox"/> INTACT <input type="checkbox"/> BROKEN | | | | | | | | | | | | | | | | | | |

CASE NARRATIVE

CLIENT: TETRA TECH FW, INC.

PROJECT: MFA, SITE 1, CTO 86

SDG: 04E228

**SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS**

Four (4) water samples were received on 05/26/04 for Volatile Organic analysis by Method 5030B/8260B in accordance with USEPA SW846, 3rd edition.

1. Holding Time

Analytical holding time was met except E228-04. Sample was labeled preserved with HCL but pH check was at 7.

2. Tuning and Calibration

Tuning and calibration were carried out at 12 hours interval. All QC requirements were met.

3. Method Blank

Method blank was free of contamination at the reporting limit.

4. Surrogate Recovery

Recoveries were within QC limits.

5. Lab Control Sample/Lab Control Sample Duplicate

All recoveries were within QC limits.

6. Matrix Spike/Matrix Spike Duplicate

No MS/MSD sample was designated in this SDG.

7. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criteria were met.

SW 50308/82608
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH FW, INC. Date Collected: 05/24/04
Project : MFA, SITE 1, CTO 86 Date Received: 05/26/04
Batch No. : 04E228 Date Extracted: 06/02/04 07:28
Sample ID: 86-S1-001 Date Analyzed: 06/02/04 07:28
Lab Samp ID: E228-01 Dilution Factor: 1
Lab File ID: RFB027 Matrix : WATER
Ext Btch ID: V003F04 % Moisture : NA
Calib. Ref.: REB756 Instrument ID : T-003

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 1,1,1,2-TETRACHLOROETHANE | ND | .5 | .2 |
| 1,1,1-TRICHLOROETHANE | ND | .5 | .2 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 1 | .3 |
| 1,1,2-TRICHLOROETHANE | ND | .5 | .2 |
| 1,1-DICHLOROETHANE | ND | .5 | .2 |
| 1,1-DICHLOROETHENE | ND | .5 | .2 |
| 1,1-DICHLOROPROPENE | ND | .5 | .2 |
| 1,2,3-TRICHLOROBENZENE | ND | .5 | .2 |
| 1,2,3-TRICHLOROPROPANE | ND | .5 | .2 |
| 1,2,4-TRICHLOROBENZENE | ND | .5 | .2 |
| 1,2,4-TRIMETHYLBENZENE | ND | .5 | .2 |
| 1,2-DIBROMO-3-CHLOROPROPANE | ND | .2 | .1 |
| 1,2-DICHLOROBENZENE | ND | .5 | .2 |
| 1,2-DICHLOROETHANE | ND | .5 | .2 |
| 1,2-DICHLOROPROPANE | ND | .5 | .2 |
| 1,3,5-TRIMETHYLBENZENE | ND | .5 | .2 |
| 1,3-DICHLOROBENZENE | ND | .5 | .2 |
| 1,3-DICHLOROPROPANE | ND | .5 | .2 |
| 1,4-DICHLOROBENZENE | ND | .5 | .2 |
| 2,2-DICHLOROPROPANE | ND | .5 | .2 |
| 2-BUTANONE | ND | 10 | .5 |
| 2-CHLOROTOLUENE | ND | 10 | .5 |
| 2-HEXANONE | ND | 10 | .5 |
| 4-CHLOROTOLUENE | ND | 10 | .5 |
| 4-METHYL-2-PENTANONE | ND | 10 | .5 |
| ACETONE | ND | .5 | .2 |
| BENZENE | ND | .5 | .2 |
| BROMOBENZENE | ND | .5 | .2 |
| BROMOCHLOROMETHANE | ND | .5 | .2 |
| BROMODICHLOROMETHANE | ND | .5 | .2 |
| BROMOFORM | ND | .5 | .2 |
| BROMOMETHANE | ND | .5 | .2 |
| CARBON DISULFIDE | ND | .5 | .2 |
| CARBON TETRACHLORIDE | ND | .5 | .2 |
| CHLOROBENZENE | ND | .5 | .2 |
| CHLOROETHANE | ND | .5 | .2 |
| CHLOROFORM | ND | .5 | .2 |
| CHLOROMETHANE | ND | .5 | .2 |
| CIS-1,2-DICHLOROETHENE | ND | .5 | .2 |
| CIS-1,3-DICHLOROPROPENE | ND | .5 | .2 |
| DIBROMOCHLOROMETHANE | ND | .5 | .2 |
| DIBROMOMETHANE | ND | .5 | .2 |
| DICHLORODIFLUOROMETHANE | ND | .5 | .2 |
| ETHYLBENZENE | ND | .5 | .2 |
| HEXACHLOROBUTADIENE | ND | .5 | .2 |
| ISOPROPYL BENZENE | ND | .5 | .2 |
| M/P-XYLENES | ND | .5 | .2 |
| METHYLENE CHLORIDE | ND | .5 | .2 |
| N-BUTYLBENZENE | ND | .5 | .2 |
| N-PROPYLBENZENE | ND | .5 | .2 |
| NAPHTHALENE | ND | .5 | .2 |
| O-XYLENE | ND | .5 | .2 |
| P-ISOPROPYLTOLUENE | ND | .5 | .2 |
| SEC-BUTYLBENZENE | ND | .5 | .2 |
| STYRENE | ND | .5 | .2 |
| TERT-BUTYLBENZENE | ND | .5 | .2 |
| TETRACHLOROETHYLENE | ND | .5 | .2 |
| TOLUENE | .54 | .5 | .2 |
| TRANS-1,2-DICHLOROETHENE | ND | .5 | .2 |
| TRANS-1,3-DICHLOROPROPENE | ND | .5 | .2 |
| TRICHLOROETHENE | ND | .5 | .2 |
| TRICHLOROFLUOROMETHANE | ND | .5 | .2 |
| VINYL CHLORIDE | ND | .5 | .2 |
| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT | |
| 1,2-DICHLOROETHANE-D4 | 129 | 62-139 | |
| TOLUENE-D8 | 101 | 75-125 | |
| BROMOFLUOROBENZENE | 91 | 75-125 | |

R.L. : Reporting limit
* : Out of QC
E : Exceeded calibration range
B : Found in associated method blank
J : Value between R.L. and MDL
D : Value from dilution analysis
D.O. : Diluted out

SW 50308/8260B
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH FW, INC. Date Collected: 05/24/04
Project : MFA, SITE 1, CTO 86 Date Received: 05/26/04
Batch No. : 04E228 Date Extracted: 06/02/04 06:49
Sample ID: 86-S1-014 Date Analyzed: 06/02/04 06:49
Lab Samp ID: E228-02 Dilution Factor: 1
Lab File ID: RFB026 Matrix : WATER
Ext Btch ID: V003F04 % Moisture : NA
Calib. Ref.: REB756 Instrument ID : T-003

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 1,1,1,2-TETRACHLOROETHANE | ND | 5 | 3 |
| 1,1,1-TRICHLOROETHANE | ND | 5 | 3 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 1 | 3 |
| 1,1,2-TRICHLOROETHANE | ND | 5 | 3 |
| 1,1-DICHLOROETHANE | ND | 5 | 3 |
| 1,1-DICHLOROETHENE | ND | 5 | 3 |
| 1,1-DICHLOROPROPENE | ND | 5 | 3 |
| 1,2,3-TRICHLOROBENZENE | ND | 5 | 3 |
| 1,2,3-TRICHLOROPROPANE | ND | 5 | 3 |
| 1,2,4-TRICHLOROBENZENE | ND | 5 | 3 |
| 1,2,4-TRIMETHYLBENZENE | ND | 5 | 3 |
| 1,2-DIBROMO-3-CHLOROPROPANE | ND | 2 | 1 |
| 1,2-DICHLOROBENZENE | ND | 5 | 3 |
| 1,2-DICHLOROETHANE | ND | 5 | 3 |
| 1,2-DICHLOROPROPANE | ND | 5 | 3 |
| 1,3,5-TRIMETHYLBENZENE | ND | 5 | 3 |
| 1,3-DICHLOROBENZENE | ND | 5 | 3 |
| 1,3-DICHLOROPROPANE | ND | 5 | 3 |
| 1,4-DICHLOROBENZENE | ND | 5 | 3 |
| 2,2-DICHLOROPROPANE | ND | 5 | 3 |
| 2-BUTANONE | ND | 10 | 3 |
| 2-CHLOROTOLUENE | ND | 5 | 3 |
| 2-HEXANONE | ND | 10 | 3 |
| 4-CHLOROTOLUENE | ND | 5 | 3 |
| 4-METHYL-2-PENTANONE | ND | 10 | 3 |
| ACETONE | ND | 10 | 3 |
| BENZENE | ND | 5 | 3 |
| BROMOBENZENE | ND | 5 | 3 |
| BROMOCHLOROMETHANE | ND | 5 | 3 |
| BROMODICHLOROMETHANE | ND | 5 | 3 |
| BROMOFORM | ND | 5 | 3 |
| BROMOMETHANE | ND | 1 | 3 |
| CARBON DISULFIDE | ND | 5 | 3 |
| CARBON TETRACHLORIDE | ND | 5 | 3 |
| CHLOROBENZENE | ND | 5 | 3 |
| CHLOROETHANE | ND | 1 | 3 |
| CHLOROFORM | ND | 5 | 3 |
| CHLOROMETHANE | ND | 1 | 3 |
| CIS-1,2-DICHLOROETHENE | ND | 5 | 3 |
| CIS-1,3-DICHLOROPROPENE | ND | 5 | 3 |
| DIBROMOCHLOROMETHANE | ND | 5 | 3 |
| DIBROMOMETHANE | ND | 5 | 3 |
| DICHLORODIFLUOROMETHANE | ND | 1 | 3 |
| ETHYLBENZENE | ND | 5 | 3 |
| HEXACHLOROBUTADIENE | ND | 5 | 3 |
| ISOPROPYL BENZENE | ND | 5 | 3 |
| M/P-XYLENES | ND | 1 | 3 |
| METHYLENE CHLORIDE | ND | 2 | 3 |
| N-BUTYLBENZENE | ND | 5 | 3 |
| N-PROPYLBENZENE | ND | 5 | 3 |
| NAPHTHALENE | ND | 5 | 3 |
| O-XYLENE | ND | 5 | 3 |
| P-ISOPROPYLTOLUENE | ND | 5 | 3 |
| SEC-BUTYLBENZENE | ND | 5 | 3 |
| STYRENE | ND | 5 | 3 |
| TERT-BUTYLBENZENE | ND | 5 | 3 |
| TETRACHLOROETHYLENE | ND | 5 | 3 |
| TOLUENE | ND | 5 | 3 |
| TRANS-1,2-DICHLOROETHENE | ND | 5 | 3 |
| TRANS-1,3-DICHLOROPROPENE | ND | 5 | 3 |
| TRICHLOROETHENE | ND | 5 | 3 |
| TRICHLOROFLUOROMETHANE | ND | 1 | 3 |
| VINYL CHLORIDE | ND | 1 | 3 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|-----------------------|------------|----------|
| 1,2-DICHLOROETHANE-D4 | 111 | 62-139 |
| TOLUENE-D8 | 106 | 75-125 |
| BROMOFLUOROBENZENE | 102 | 75-125 |

R.L. : Reporting limit
* : Out of QC
E : Exceeded calibration range
B : Found in associated method blank
J : Value between R.L. and MDL
D : Value from dilution analysis
D.O. : Diluted out

6 2005

SW 50308/82608
 VOLATILE ORGANICS BY GC/MS

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Client       : TETRA TECH FW, INC.      Date Collected: 05/24/04
Project      : MFA, SITE 1, CTO 86     Date Received: 05/26/04
Batch No.    : 04E228                  Date Extracted: 06/02/04 08:06
Sample ID    : 86-S1-002               Date Analyzed: 06/02/04 08:06
Lab Smp ID   : E228-03                 Dilution Factor: 1
Lab File ID  : RF8028                  Matrix: WATER
Ext Btch ID  : V003F04                 % Moisture: NA
Calib. Ref.  : REB756                  Instrument ID: T-003
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| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 1,1,1,2-TETRACHLOROETHANE | ND | .5 | .5 |
| 1,1,1-TRICHLOROETHANE | ND | .5 | .5 |
| 1,1,2,2-TETRACHLOROETHANE | ND | .5 | .5 |
| 1,1,2-TRICHLOROETHANE | ND | .5 | .5 |
| 1,1-DICHLOROETHANE | ND | .5 | .5 |
| 1,1-DICHLOROETHENE | ND | .5 | .5 |
| 1,1-DICHLOROPROPENE | ND | .5 | .5 |
| 1,2,3-TRICHLOROBENZENE | ND | .5 | .5 |
| 1,2,3-TRICHLOROPROPANE | ND | .5 | .5 |
| 1,2,4-TRICHLOROBENZENE | ND | .5 | .5 |
| 1,2,4-TRIMETHYLBENZENE | ND | .5 | .5 |
| 1,2-DIBROMO-3-CHLOROPROPANE | ND | .5 | .5 |
| 1,2-DICHLOROBENZENE | ND | .5 | .5 |
| 1,2-DICHLOROETHANE | ND | .5 | .5 |
| 1,2-DICHLOROPROPANE | ND | .5 | .5 |
| 1,3,5-TRIMETHYLBENZENE | ND | .5 | .5 |
| 1,3-DICHLOROBENZENE | ND | .5 | .5 |
| 1,3-DICHLOROPROPANE | ND | .5 | .5 |
| 1,4-DICHLOROBENZENE | ND | .5 | .5 |
| 2,2-DICHLOROPROPANE | ND | .5 | .5 |
| 2-BUTANONE | ND | 10 | 10 |
| 2-CHLOROTOLUENE | ND | .5 | .5 |
| 2-HEXANONE | ND | 10 | 10 |
| 4-CHLOROTOLUENE | ND | .5 | .5 |
| 4-METHYL-2-PENTANONE | ND | 10 | 10 |
| ACETONE | ND | .5 | .5 |
| BENZENE | ND | .5 | .5 |
| BROMOBENZENE | ND | .5 | .5 |
| BROMOCHLOROMETHANE | ND | .5 | .5 |
| BROMODICHLOROMETHANE | ND | .5 | .5 |
| BROMOFORM | ND | .5 | .5 |
| BROMOMETHANE | ND | .5 | .5 |
| CARBON DISULFIDE | ND | .5 | .5 |
| CARBON TETRACHLORIDE | ND | .5 | .5 |
| CHLOROBENZENE | ND | .5 | .5 |
| CHLOROETHANE | ND | .5 | .5 |
| CHLOROFORM | ND | .5 | .5 |
| CHLOROMETHANE | ND | .5 | .5 |
| CIS-1,2-DICHLOROETHENE | ND | .5 | .5 |
| CIS-1,3-DICHLOROPROPENE | ND | .5 | .5 |
| DIBROMOCHLOROMETHANE | ND | .5 | .5 |
| DIBROMOMETHANE | ND | .5 | .5 |
| DICHLORODIFLUOROMETHANE | ND | .5 | .5 |
| ETHYLBENZENE | ND | .5 | .5 |
| HEXACHLOROBUTADIENE | ND | .5 | .5 |
| ISOPROPYL BENZENE | ND | .5 | .5 |
| M/P-XYLENES | ND | .5 | .5 |
| METHYLENE CHLORIDE | ND | .5 | .5 |
| N-BUTYLBENZENE | ND | .5 | .5 |
| N-PROPYLBENZENE | ND | .5 | .5 |
| NAPHTHALENE | ND | .5 | .5 |
| O-XYLENE | ND | .5 | .5 |
| P-ISOPROPYLTOLUENE | ND | .5 | .5 |
| SEC-BUTYLBENZENE | ND | .5 | .5 |
| STYRENE | ND | .5 | .5 |
| TERT-BUTYLBENZENE | ND | .5 | .5 |
| TETRACHLOROETHYLENE | ND | .5 | .5 |
| TOLUENE | .71 | .5 | .5 |
| TRANS-1,2-DICHLOROETHENE | ND | .5 | .5 |
| TRANS-1,3-DICHLOROPROPENE | ND | .5 | .5 |
| TRICHLOROETHENE | ND | .5 | .5 |
| TRICHLOROFLUOROMETHANE | ND | .5 | .5 |
| VINYL CHLORIDE | ND | .5 | .5 |
| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT | |
| 1,2-DICHLOROETHANE-D4 | 126 | 62-139 | |
| TOLUENE-D8 | 107 | 75-125 | |
| BROMOFLUOROBENZENE | 96 | 75-125 | |

R.L. : Reporting limit
 * : Out of QC
 E : Exceeded calibration range
 B : Found in associated method blank
 J : Value between R.L. and MDL
 D : Value from dilution analysis
 D.O. : Diluted out

2006

SW 50308/82608
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH FW, INC. Date Collected: 05/24/04
Project : MFA, SITE 1, CTO 86 Date Received: 05/26/04
Batch No. : 04E228 Date Extracted: 06/02/04 08:44
Sample ID: 86-S1-003 Date Analyzed: 06/02/04 08:44
Lab Samp ID: E228-04 Dilution Factor: 1
Lab File ID: RFB029 Matrix: WATER
Ext Btch ID: V003F04 % Moisture: NA
Calib. Ref.: REB756 Instrument ID: T-003

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 1,1,1,2-TETRACHLOROETHANE | ND | .5 | .5 |
| 1,1,1-TRICHLOROETHANE | ND | .5 | .5 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 1 | 1 |
| 1,1,2-TRICHLOROETHANE | ND | .5 | .5 |
| 1,1-DICHLOROETHANE | ND | .5 | .5 |
| 1,1-DICHLOROETHENE | ND | .5 | .5 |
| 1,1-DICHLOROPROPENE | ND | .5 | .5 |
| 1,2,3-TRICHLOROBENZENE | ND | .5 | .5 |
| 1,2,3-TRICHLOROPROPANE | ND | .5 | .5 |
| 1,2,4-TRICHLOROBENZENE | ND | .5 | .5 |
| 1,2,4-TRIMETHYLBENZENE | ND | .5 | .5 |
| 1,2-DIBROMO-3-CHLOROPROPANE | ND | .5 | .5 |
| 1,2-DICHLOROBENZENE | ND | .5 | .5 |
| 1,2-DICHLOROETHANE | ND | .5 | .5 |
| 1,2-DICHLOROPROPANE | ND | .5 | .5 |
| 1,3,5-TRIMETHYLBENZENE | ND | .5 | .5 |
| 1,3-DICHLOROBENZENE | ND | .5 | .5 |
| 1,3-DICHLOROPROPANE | ND | .5 | .5 |
| 1,4-DICHLOROBENZENE | ND | .5 | .5 |
| 2,2-DICHLOROPROPANE | ND | .5 | .5 |
| 2-BUTANONE | ND | 10 | 10 |
| 2-CHLOROTOLUENE | ND | .5 | .5 |
| 2-HEXANONE | ND | 10 | 10 |
| 4-CHLOROTOLUENE | ND | .5 | .5 |
| 4-METHYL-2-PENTANONE | ND | 10 | 10 |
| ACETONE | ND | 10 | 10 |
| BENZENE | ND | .5 | .5 |
| BROMOBENZENE | ND | .5 | .5 |
| BROMOCHLOROMETHANE | ND | .5 | .5 |
| BROMODICHLOROMETHANE | ND | .5 | .5 |
| BROMOFORM | ND | .5 | .5 |
| BROMOMETHANE | ND | .5 | .5 |
| CARBON DISULFIDE | .24J | .5 | .5 |
| CARBON TETRACHLORIDE | ND | .5 | .5 |
| CHLOROBENZENE | ND | .5 | .5 |
| CHLOROETHANE | ND | .5 | .5 |
| CHLOROFORM | ND | .5 | .5 |
| CHLOROMETHANE | ND | .5 | .5 |
| CIS-1,2-DICHLOROETHENE | ND | .5 | .5 |
| CIS-1,3-DICHLOROPROPENE | ND | .5 | .5 |
| DIBROMOCHLOROMETHANE | ND | .5 | .5 |
| DIBROMOMETHANE | ND | .5 | .5 |
| DICHLORODIFLUOROMETHANE | ND | .5 | .5 |
| ETHYLBENZENE | ND | .5 | .5 |
| HEXACHLOROBUTADIENE | ND | .5 | .5 |
| ISOPROPYL BENZENE | ND | .5 | .5 |
| M/P-XYLENES | ND | .5 | .5 |
| METHYLENE CHLORIDE | ND | .5 | .5 |
| N-BUTYLBENZENE | ND | .5 | .5 |
| N-PROPYLBENZENE | ND | .5 | .5 |
| NAPHTHALENE | ND | .5 | .5 |
| O-XYLENE | ND | .5 | .5 |
| P-ISOPROPYLTOLUENE | ND | .5 | .5 |
| SEC-BUTYLBENZENE | ND | .5 | .5 |
| STYRENE | ND | .5 | .5 |
| TERT-BUTYLBENZENE | ND | .5 | .5 |
| TETRACHLOROETHYLENE | ND | .5 | .5 |
| TOLUENE | ND | .5 | .5 |
| TRANS-1,2-DICHLOROETHENE | ND | .5 | .5 |
| TRANS-1,3-DICHLOROPROPENE | ND | .5 | .5 |
| TRICHLOROETHENE | ND | .5 | .5 |
| TRICHLOROFLUOROMETHANE | ND | .5 | .5 |
| VINYL CHLORIDE | ND | .5 | .5 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|-----------------------|------------|----------|
| 1,2-DICHLOROETHANE-D4 | 126 | 62-139 |
| TOLUENE-D8 | 102 | 75-125 |
| BROMOFLUOROBENZENE | 98 | 75-125 |

R.L. : Reporting limit
* : Out of QC
E : Exceeded calibration range
B : Found in associated method blank
J : Value between R.L. and MDL
D : Value from dilution analysis
D.O. : Diluted out

CASE NARRATIVE

CLIENT: TETRA TECH FW, INC.
PROJECT: MFA, SITE 1, CTO 86
SDG: 04E228

SW 3520C/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Three (3) water samples were received on 05/26/04 for Semi Volatile Organic analysis by Method 3520C/8270C in accordance with USEPA SW846, 3rd edition.

1. Holding Time

Analytical holding time was met.

2. Tuning and Calibration

Tuning and calibration were carried out at 12 hours interval. All QC requirements were met.

3. Method Blank

Method blank was free of contamination at the reporting limit.

4. Surrogate Recovery

Recoveries were within QC limits.

5. Lab Control Sample/Lab Control Sample Duplicate

All recoveries were within QC limits.

6. Matrix Spike/Matrix Spike Duplicate

No MS/MSD sample was designated in this SDG.

7. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criteria were met.

SW 3520C/8270C
 SEMI VOLATILE ORGANICS BY GC/MS

| | |
|-------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 05/24/04 |
| Project : MFA, SITE 1, CTO 86 | Date Received: 05/26/04 |
| Batch No. : 04E228 | Date Extracted: 05/26/04 16:00 |
| Sample ID: 86-S1-001 | Date Analyzed: 06/04/04 20:56 |
| Lab Samp ID: E228-01 | Dilution Factor: .94 |
| Lab File ID: RFK067 | Matrix: WATER |
| Ext Btch ID: SVE029W | % Moisture: NA |
| Calib. Ref.: REK313 | Instrument ID: T-052 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 2,4,5-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4,6-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DIMETHYLPHENOL | ND | 9.4 | 4.7 |
| 2,4-DINITROPHENOL | ND | 19 | 9.4 |
| 2,4-DINITROTOLUENE | ND | 19 | 9.4 |
| 2,6-DINITROTOLUENE | ND | 19 | 5.6 |
| 2-CHLORONAPHTHALENE | ND | 9.4 | 4.7 |
| 2-CHLOROPHENOL | ND | 9.4 | 4.7 |
| 2-METHYLNAPHTHALENE | ND | 9.4 | 4.7 |
| 2-METHYLPHENOL | ND | 9.4 | 4.7 |
| 2-NITROANILINE | ND | 19 | 5.6 |
| 2-NITROPHENOL | ND | 9.4 | 4.7 |
| 3,3'-DICHLOROBENZIDINE | ND | 9.4 | 4.7 |
| 3-NITROANILINE | ND | 9.4 | 4.7 |
| 4,6-DINITRO-2-METHYLPHENOL | ND | 19 | 9.4 |
| 4-BROMOPHENYL-PHENYL ETHER | ND | 19 | 6.6 |
| 4-CHLORO-3-METHYLPHENOL | ND | 9.4 | 4.7 |
| 4-CHLOROANILINE | ND | 9.4 | 4.7 |
| 4-CHLOROPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-METHYLPHENOL (1) | ND | 9.4 | 4.7 |
| 4-NITROANILINE | ND | 9.4 | 4.7 |
| 4-NITROPHENOL | ND | 19 | 4.7 |
| ACENAPHTHENE | ND | 9.4 | 4.7 |
| ACENAPHTHYLENE | ND | 9.4 | 4.7 |
| ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)PYRENE | ND | 9.4 | 4.7 |
| BENZO(B)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(K)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(G,H,I)PERYLENE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHOXY)METHANE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-CHLOROISOPROPYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-ETHYLHEXYL)PHTHALATE | ND | 19 | 9.4 |
| BUTYLBENZYLPHTHALATE | ND | 9.4 | 4.7 |
| CHRYSENE | ND | 9.4 | 4.7 |
| DI-N-BUTYLPHTHALATE | ND | 9.4 | 4.7 |
| DI-N-OCTYLPHTHALATE | ND | 9.4 | 4.7 |
| DIBENZO(A,H)ANTHRACENE | ND | 9.4 | 4.7 |
| DIBENZOFURAN | ND | 9.4 | 4.7 |
| DIETHYLPHTHALATE | ND | 19 | 5.6 |
| DIMETHYLPHTHALATE | ND | 19 | 4.7 |
| FLUORANTHENE | ND | 9.4 | 4.7 |
| FLUORENE | ND | 19 | 4.7 |
| HEXACHLORO BENZENE | ND | 9.4 | 5.6 |
| HEXACHLOROCYCLOPENTADIENE | ND | 9.4 | 4.7 |
| HEXACHLOROETHANE | ND | 9.4 | 4.7 |
| INDENO(1,2,3-CD)PYRENE | ND | 9.4 | 4.7 |
| ISOPHORONE | ND | 9.4 | 4.7 |
| N-NITROSO-DI-N-PROPYLAMINE | ND | 9.4 | 4.7 |
| N-NITROSODIPHENYLAMINE (2) | ND | 9.4 | 4.7 |
| NITROBENZENE | ND | 9.4 | 4.7 |
| PENTACHLOROPHENOL | ND | 19 | 9.4 |
| PHENANTHRENE | ND | 19 | 5.6 |
| PHENOL | ND | 9.4 | 4.7 |
| PYRENE | ND | 9.4 | 4.7 |
| 1,1'-BIPHENYL | ND | 9.4 | 4.7 |
| ACETOPHENONE | ND | 19 | 2.3 |
| ATRAZINE | ND | 9.4 | 9.4 |
| BENZALDEHYDE | ND | 9.4 | 4.7 |
| CAPROLACTAM | ND | 9.4 | 4.7 |
| CARBAZOLE | ND | 9.4 | 4.7 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| 2,4,6-TRIBROMOPHENOL | 61 | 25-134 |
| 2-FLUOROBIPHENYL | 44 | 43-125 |
| 2-FLUOROPHENOL | 42 | 25-125 |
| NITROBENZENE-D5 | 45 | 32-125 |
| PHENOL-D5 | 47 | 25-125 |
| TERPHENYL-D14 | 67 | 42-126 |

RL: Reporting Limit
 (1): Cannot be separated from 3-Methylphenol
 (2): Cannot be separated from Diphenylamine

SW 3520C/8270C
 SEMI VOLATILE ORGANICS BY GC/MS

| | |
|-------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 05/24/04 |
| Project : MFA, SITE 1, CTO 86 | Date Received: 05/26/04 |
| Batch No. : 04E228 | Date Extracted: 05/26/04 16:00 |
| Sample ID: 86-S1-002 | Date Analyzed: 06/04/04 21:26 |
| Lab Samp ID: E228-03 | Dilution Factor: .94 |
| Lab File ID: RFK068 | Matrix: WATER |
| Ext. Btch ID: SVE029W | % Moisture: NA |
| Calib. Ref.: REK313 | Instrument ID: T-052 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 2,4,5-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4,6-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DIMETHYLPHENOL | ND | 9.4 | 4.7 |
| 2,4-DINITROPHENOL | ND | 19 | 9.4 |
| 2,4-DINITROTOLUENE | ND | 19 | 5.6 |
| 2,6-DINITROTOLUENE | ND | 9.4 | 4.7 |
| 2-CHLORONAPHTHALENE | ND | 9.4 | 4.7 |
| 2-CHLOROPHENOL | ND | 9.4 | 4.7 |
| 2-METHYLNAPHTHALENE | ND | 9.4 | 4.7 |
| 2-METHYLPHENOL | ND | 19 | 5.6 |
| 2-NITROANILINE | ND | 9.4 | 4.7 |
| 2-NITROPHENOL | ND | 9.4 | 4.7 |
| 3,5-DICHLOROBENZIDINE | ND | 9.4 | 4.7 |
| 3-NITROANILINE | ND | 9.4 | 4.7 |
| 4,6-DINITRO-2-METHYLPHENOL | ND | 19 | 9.4 |
| 4-BROMOPHENYL-PHENYL ETHER | ND | 19 | 6.6 |
| 4-CHLORO-3-METHYLPHENOL | ND | 9.4 | 4.7 |
| 4-CHLOROANILINE | ND | 9.4 | 4.7 |
| 4-CHLOROPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-METHYLPHENOL (1) | ND | 9.4 | 4.7 |
| 4-NITROANILINE | ND | 19 | 4.7 |
| 4-NITROPHENOL | ND | 9.4 | 4.7 |
| ACENAPHTHENE | ND | 9.4 | 4.7 |
| ACENAPHTHYLENE | ND | 9.4 | 4.7 |
| ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)PYRENE | ND | 9.4 | 4.7 |
| BENZO(B)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(K)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(G,H,I)PERYLENE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHOXY)METHANE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-CHLOROISOPROPYL)ETHER | ND | 9.4 | 6.7 |
| BIS(2-ETHYLHEXYL)PHTHALATE | 42 | 19 | 9.4 |
| BUTYLBENZYLPHTHALATE | ND | 9.4 | 4.7 |
| CHRYSENE | ND | 9.4 | 4.7 |
| DI-N-BUTYLPHTHALATE | ND | 9.4 | 4.7 |
| DI-N-OCTYLPHTHALATE | ND | 9.4 | 4.7 |
| DIBENZO(A,H)ANTHRACENE | ND | 9.4 | 4.7 |
| DIBENZOFURAN | ND | 19 | 5.6 |
| DIETHYLPHTHALATE | ND | 19 | 4.7 |
| DIMETHYLPHTHALATE | ND | 9.4 | 4.7 |
| FLUORANTHENE | ND | 9.4 | 4.7 |
| FLUORENE | ND | 19 | 5.6 |
| HEXACHLOROBENZENE | ND | 9.4 | 4.7 |
| HEXACHLOROCYCLOPENTADIENE | ND | 9.4 | 4.7 |
| HEXACHLOROETHANE | ND | 9.4 | 4.7 |
| INDENO(1,2,3-CD)PYRENE | ND | 9.4 | 4.7 |
| ISOPHORONE | ND | 9.4 | 4.7 |
| N-NITROSO-DI-N-PROPYLAMINE | ND | 9.4 | 4.7 |
| N-NITROSODIPHENYLAMINE (2) | ND | 9.4 | 4.7 |
| NITROBENZENE | ND | 9.4 | 4.7 |
| PENTACHLOROPHENOL | ND | 19 | 5.6 |
| PHENANTHRENE | ND | 9.4 | 4.7 |
| PHENOL | ND | 9.4 | 4.7 |
| PYRENE | ND | 9.4 | 4.7 |
| 1,1'-BIPHENYL | ND | 9.4 | 2.3 |
| ACETOPHENONE | ND | 19 | 9.4 |
| ATRAZINE | ND | 9.4 | 4.7 |
| BENZALDEHYDE | 6.2J | 9.4 | 4.7 |
| CAPROLACTAM | ND | 9.4 | 4.7 |
| CARBAZOLE | ND | 9.4 | 4.7 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| 2,4,6-TRIBROMOPHENOL | 73 | 25-134 |
| 2-FLUOROBIPHENYL | 61 | 43-125 |
| 2-FLUOROPHENOL | 57 | 25-125 |
| NITROBENZENE-D5 | 64 | 26-125 |
| PHENOL-D5 | 60 | 25-125 |
| TERPHENYL-D14 | 67 | 42-126 |

RL: Reporting Limit
 (1): Cannot be separated from 3-Methylphenol
 (2): Cannot be separated from Diphenylamine

SW 3520C/8270C
 SEMI VOLATILE ORGANICS BY GC/MS

| | |
|------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 05/24/04 |
| Project : MFA SITE 1, CTO 86 | Date Received: 05/26/04 |
| Batch No.: 04E228 | Date Extracted: 03/26/04 16:00 |
| Sample ID: 86-S1-003 | Date Analyzed: 06/04/04 21:56 |
| Lab Samp ID: E228-04 | Dilution Factor: .94 |
| Lab File ID: RFK069 | Matrix : WATER |
| Ext Btch ID: SVE029W | % Moisture : NA |
| Calib. Ref.: REK313 | Instrument ID : T-052 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 2,4,5-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4,6-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DIMETHYLPHENOL | ND | 9.4 | 4.7 |
| 2-DINITROPHENOL | ND | 19 | 9.4 |
| 2-DINITROTOLUENE | ND | 19 | 9.4 |
| 2,6-DINITROTOLUENE | ND | 19 | 5.6 |
| 2-CHLORONAPHTHALENE | ND | 9.4 | 4.7 |
| 2-CHLOROPHENOL | ND | 9.4 | 4.7 |
| 2-METHYLNAPHTHALENE | ND | 9.4 | 4.7 |
| 2-METHYLPHENOL | ND | 9.4 | 4.7 |
| 2-NITROANILINE | ND | 19 | 5.6 |
| 2-NITROPHENOL | ND | 9.4 | 4.7 |
| 3,3'-DICHLOROBENZIDINE | ND | 9.4 | 4.7 |
| 3-NITROANILINE | ND | 9.4 | 4.7 |
| 4,6-DINITRO-2-METHYLPHENOL | ND | 19 | 9.4 |
| 4-BROMOPHENYL-PHENYL ETHER | ND | 19 | 6.6 |
| 4-CHLORO-3-METHYLPHENOL | ND | 9.4 | 4.7 |
| 4-CHLOROANILINE | ND | 9.4 | 4.7 |
| 4-CHLOROPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-METHYLPHENOL (1) | ND | 9.4 | 4.7 |
| 4-NITROANILINE | ND | 19 | 4.7 |
| 4-NITROPHENOL | ND | 9.4 | 4.7 |
| ACENAPHTHENE | ND | 9.4 | 4.7 |
| ACENAPHTHYLENE | ND | 9.4 | 4.7 |
| ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)PYRENE | ND | 9.4 | 4.7 |
| BENZO(B)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(K)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(G,H,I)PERYLENE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHOXY)METHANE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-CHLOROISOPROPYL)ETHER | ND | 19 | 9.4 |
| BIS(2-ETHYLHEXYL)PHTHALATE | ND | 9.4 | 4.7 |
| BUTYLBENZYLPHTHALATE | ND | 9.4 | 4.7 |
| CHRYSENE | ND | 9.4 | 4.7 |
| DI-N-BUTYLPHTHALATE | ND | 9.4 | 4.7 |
| DI-N-OCTYLPHTHALATE | ND | 9.4 | 4.7 |
| DIBENZO(A,H)ANTHRACENE | ND | 9.4 | 4.7 |
| DIBENZOFURAN | ND | 9.4 | 4.7 |
| DIETHYLPHTHALATE | ND | 19 | 5.6 |
| DIMETHYLPHTHALATE | ND | 19 | 4.7 |
| FLUORANTHENE | ND | 9.4 | 4.7 |
| FLUORENE | ND | 9.4 | 4.7 |
| HEXACHLOROBENZENE | ND | 19 | 5.6 |
| HEXACHLOROCYCLOPENTADIENE | ND | 9.4 | 4.7 |
| HEXACHLOROETHANE | ND | 9.4 | 4.7 |
| INDENO(1,2,3-CD)PYRENE | ND | 9.4 | 4.7 |
| ISOPHORONE | ND | 9.4 | 4.7 |
| N-NITROSO-DI-N-PROPYLAMINE | ND | 9.4 | 4.7 |
| N-NITROSODIPHENYLAMINE (2) | ND | 9.4 | 4.7 |
| NITROBENZENE | ND | 19 | 9.4 |
| PENTACHLOROPHENOL | ND | 19 | 5.6 |
| PHENANTHRENE | ND | 9.4 | 4.7 |
| PHENOL | ND | 9.4 | 4.7 |
| PYRENE | ND | 9.4 | 4.7 |
| 1,1'-BIPHENYL | ND | 9.4 | 4.7 |
| ACETOPHENONE | ND | 9.4 | 2.3 |
| ATRAZINE | ND | 19 | 9.4 |
| BENZALDEHYDE | ND | 9.4 | 4.7 |
| CAPROLACTAM | ND | 9.4 | 4.7 |
| CARBAZOLE | ND | 9.4 | 4.7 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| 2,4,6-TRIBROMOPHENOL | 64 | 25-134 |
| 2-FLUOROBIPHENYL | 48 | 23-125 |
| 2-FLUOROPHENOL | 37 | 25-125 |
| NITROBENZENE-D5 | 39 | 25-125 |
| PHENOL-D5 | 25 | 25-125 |
| TERPHENYL-D14 | 59 | 42-126 |

RL: Reporting Limit
 (1): Cannot be separated from 3-Methylphenol
 (2): Cannot be separated from Diphenylamine

CASE NARRATIVE**CLIENT:** TETRA TECH FW, INC.**PROJECT:** MFA, SITE 1, CTO 86**SDG:** 04E228**SW3520C/8081A
PESTICIDES**

Three (3) water samples were received on 05/26/04 for Pesticides analysis by Method 3520C/8081A in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW846, 3rd edition.

1. Holding Time

Analytical holding time was met.

2. Instrument Performance and Calibration

Initial calibration was at five-point for Pesticides, all RSDs were within 20%. All continue calibrations were analyzed at 12-hour interval and mean recoveries were within 85-115%.

Endrin and DDT breakdown were within QC limits.

3. Method Blank

Method blank was free of contamination at the reporting limit.

4. Surrogate Recovery

Recoveries were within QC limits.

5. Lab Control Sample/Lab Control Sample Duplicate

All recoveries were within QC limits.

6. Matrix Spike/Matrix Spike Duplicate

No MS/MSD sample was designated in this SDG.

7. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criteria were met.

SW3520C/8081A
 PESTICIDES

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=====
Client       : TETRA TECH FW, INC.      Date Collected: 05/24/04
Project      : MFA, SITE 1, CTO 86      Date Received: 05/26/04
Batch No.    : 04E228                   Date Extracted: 05/27/04 16:00
Sample ID    : 86-S1-001                Date Analyzed: 06/02/04 17:21
Lab Samp ID  : E228-01                  Dilution Factor: .94
Lab File ID  : SF02012A                 Matrix          : WATER
Ext Btch ID  : CPE026W                  % Moisture       : NA
Calib. Ref.  : SF02003A                 Instrument ID    : GCT008
=====
  
```

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|----------------------|-------------------|--------------|---------------|
| ALPHA-BHC | (ND) ND | .047 | .0094 |
| GAMMA-BHC (LINDANE) | (ND) ND | .047 | .0094 |
| BETA-BHC | (ND) ND | .047 | .0094 |
| HEPTACHLOR | (ND) ND | .047 | .0094 |
| DELTA-BHC | (ND) ND | .047 | .0094 |
| ALDRIN | (ND) ND | .047 | .0094 |
| HEPTACHLOR EPOXIDE | (ND) ND | .047 | .0094 |
| GAMMA-CHLORDANE | .015J (ND) | .047 | .0094 |
| ALPHA-CHLORDANE | (ND) ND | .047 | .0094 |
| ENDOSULFAN I | (ND) ND | .047 | .028 |
| 4,4'-DDE | (ND) ND | .094 | .028 |
| DIELDRIN | (ND) ND | .19 | .094 |
| ENDRIN | (ND) ND | .094 | .019 |
| 4,4'-DDD | (ND) ND | .094 | .028 |
| ENDOSULFAN II | (ND) ND | .094 | .019 |
| 4,4'-DDT | (ND) ND | .094 | .019 |
| ENDRIN ALDEHYDE | (ND) ND | .094 | .019 |
| ENDOSULFAN SULFATE | (ND) ND | .094 | .019 |
| ENDRIN KETONE | (ND) ND | .094 | .019 |
| METHOXYCHLOR | (ND) ND | .47 | .094 |
| TOXAPHENE | (ND) ND | 2.8 | 1.2 |
| | | | |
| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT | |
| TETRACHLORO-M-XYLENE | (73) 71 | 30-130 | |
| DECACHLOROBIPHENYL | (79) 70 | 30-130 | |

RL : Reporting limit

 Left of | is related to first column ; Right of | related to second column
 () included the reported column

SW3520C/8081A
PESTICIDES

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=====
Client      : TETRA TECH FW, INC.      Date Collected: 05/24/04
Project     : MFA, SITE 1, CTO 86      Date Received: 05/26/04
Batch No.   : 04E228                   Date Extracted: 05/27/04 16:00
Sample ID: 86-S1-002                   Date Analyzed: 06/02/04 17:46
Lab Samp ID: E228-03                   Dilution Factor: .94
Lab File ID: SF02013A                  Matrix          : WATER
Ext Btch ID: CPE026W                   % Moisture       : NA
Calib. Ref.: SF02003A                  Instrument ID    : GCT008
=====

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| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---------------------|-------------------|--------------|---------------|
| ALPHA-BHC | (ND) ND | .047 | .0094 .0094 |
| GAMMA-BHC (LINDANE) | (ND) ND | .047 | .0094 .0094 |
| BETA-BHC | (ND) ND | .047 | .0094 .0094 |
| HEPTACHLOR | (ND) ND | .047 | .0094 .0094 |
| DELTA-BHC | (ND) ND | .047 | .0094 .0094 |
| ALDRIN | (ND) ND | .047 | .0094 .0094 |
| HEPTACHLOR EPOXIDE | (ND) ND | .047 | .0094 .0094 |
| GAMMA-CHLORDANE | .014 (ND) | .047 | .0094 .0094 |
| ALPHA-CHLORDANE | (ND) ND | .047 | .0094 .0094 |
| ENDOSULFAN I | (ND) ND | .047 | .028 .028 |
| 4,4'-DDE | (ND) ND | .094 | .028 .028 |
| DIELDRIN | (ND) ND | .19 | .094 .094 |
| ENDRIN | (ND) ND | .094 | .019 .019 |
| 4,4'-DDD | (ND) ND | .094 | .028 .028 |
| ENDOSULFAN II | (ND) ND | .094 | .019 .019 |
| 4,4'-DDT | (ND) ND | .094 | .019 .019 |
| ENDRIN ALDEHYDE | (ND) ND | .094 | .019 .019 |
| ENDOSULFAN SULFATE | (ND) ND | .094 | .019 .019 |
| ENDRIN KETONE | (ND) ND | .094 | .019 .019 |
| METHOXYCHLOR | (ND) ND | .47 | .094 .094 |
| TOXAPHENE | (ND) ND | 2.8 | 1.2 1.2 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| TETRACHLORO-M-XYLENE | (85) 83 | 30-130 |
| DECACHLOROBIPHENYL | (82) 73 | 30-130 |

RL : Reporting limit
Left of | is related to first column ; Right of | related to second column
() included the reported column

SW3520C/8081A
 PESTICIDES

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=====
Client       : TETRA TECH FW, INC.      Date Collected: 05/24/04
Project      : MFA, SITE 1, CTO 86      Date Received: 05/26/04
Batch No.    : 04E228                   Date Extracted: 05/27/04 16:00
Sample ID    : 86-S1-003                 Date Analyzed: 06/02/04 18:11
Lab Samp ID  : E228-04                   Dilution Factor: .94
Lab File ID  : SF02014A                  Matrix          : WATER
Ext Btch ID  : CPE026W                   % Moisture       : NA
Calib. Ref.  : SF02003A                  Instrument ID    : GCT008
=====
  
```

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---------------------|-------------------|--------------|---------------|
| ALPHA-BHC | (.061) .012J | .047 | .0094 .0094 |
| GAMMA-BHC (LINDANE) | .025J (ND) | .047 | .0094 .0094 |
| BETA-BHC | .013J (.38) | .047 | .0094 .0094 |
| HEPTACHLOR | (ND) ND | .047 | .0094 .0094 |
| DELTA-BHC | (ND) ND | .047 | .0094 .0094 |
| ALDRIN | (ND) ND | .047 | .0094 .0094 |
| HEPTACHLOR EPOXIDE | (ND) ND | .047 | .0094 .0094 |
| GAMMA-CHLORDANE | (ND) ND | .047 | .0094 .0094 |
| ALPHA-CHLORDANE | (ND) ND | .047 | .0094 .0094 |
| ENDOSULFAN I | (ND) ND | .047 | .028 .028 |
| 4,4'-DDE | (ND) ND | .094 | .028 .028 |
| DIELDRIN | (ND) ND | .19 | .094 .094 |
| ENDRIN | (ND) ND | .094 | .019 .019 |
| 4,4'-DDD | (ND) ND | .094 | .028 .028 |
| ENDOSULFAN II | (ND) ND | .094 | .019 .019 |
| 4,4'-DDT | (ND) ND | .094 | .019 .019 |
| ENDRIN ALDEHYDE | (ND) ND | .094 | .019 .019 |
| ENDOSULFAN SULFATE | (ND) ND | .094 | .019 .019 |
| ENDRIN KETONE | (ND) ND | .094 | .019 .019 |
| METHOXYCHLOR | (ND) ND | .47 | .094 .094 |
| TOXAPHENE | (ND) ND | 2.8 | 1.2 1.2 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| TETRACHLORO-M-XYLENE | 95 (98) | 30-130 |
| DECAChLOROBIPHENYL | (89) 78 | 30-130 |

RL : Reporting limit
 Left of | is related to first column ; Right of | related to second column
 () included the reported column

CASE NARRATIVE

CLIENT: TETRA TECH FW, INC.
PROJECT: MFA, SITE 1, CTO 86
SDG: 04E228

SW3520C/8082
PCBs

Three (3) water samples were received on 05/26/04 for PCBs analysis by Method 3520C/8082 in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW846, 3rd edition.

1. Holding Time

Analytical holding time was met.

2. Instrument Performance and Calibration

Initial calibration was at five-point for PCB-1016 and PCB-1260, all RSDs were within 20%. All continue calibrations were analyzed at 12-hour interval and mean recoveries were within 85-115%.

3. Method Blank

Method blank was free of contamination at the reporting limit.

4. Surrogate Recovery

Recoveries were within QC limits.

5. Lab Control Sample/Lab Control Sample Duplicate

All recoveries were within QC limits.

6. Matrix Spike/Matrix Spike Duplicate

No MS/MSD sample was designated in this SDG.

7. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criteria were met.

SW3520C/8082
 PCBs

| | |
|-------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 05/24/04 |
| Project : MFA, SITE 1, CTO 86 | Date Received: 05/26/04 |
| Batch No. : 04E228 | Date Extracted: 05/27/04 16:00 |
| Sample ID: 86-S1-001 | Date Analyzed: 06/02/04 17:21 |
| Lab Samp ID: E228-01 | Dilution Factor: .94 |
| Lab File ID: SF02012A | Matrix : WATER |
| Ext Btch ID: CPE026W | % Moisture : NA |
| Calib. Ref.: SF02006A | Instrument ID : GCT008 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|------------|-------------------|--------------|---------------|
| PCB-1016 | (ND) ND | .94 | .24 .24 |
| PCB-1221 | (ND) ND | .94 | .24 .24 |
| PCB-1232 | (ND) ND | .94 | .24 .24 |
| PCB-1242 | (ND) ND | .94 | .24 .24 |
| PCB-1248 | (ND) ND | .94 | .24 .24 |
| PCB-1254 | (ND) ND | .94 | .24 .24 |
| PCB-1260 | (ND) ND | .94 | .24 .24 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| TETRACHLORO-M-XYLENE | (68) 66 | 30-130 |
| DECACHLOROBIPHENYL | (83) 75 | 30-130 |

RL: Reporting Limit
 Left of | is related to first column ; Right of | related to second column
 () included the reported column
 * Out side of QC Limit

SW3520C/8082
PCBs

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=====
Client      : TETRA TECH FW, INC.      Date Collected: 05/24/04
Project     : MFA, SITE 1, CTO 86      Date Received: 05/26/04
Batch No.   : 04E228                   Date Extracted: 05/27/04 16:00
Sample ID   : 86-S1-002                 Date Analyzed: 06/02/04 17:46
Lab Samp ID : E228-03                   Dilution Factor: .94
Lab File ID : SF02013A                  Matrix          : WATER
Ext Btch ID : CPE026W                   % Moisture       : NA
Calib. Ref. : SF02006A                  Instrument ID    : GCT008
=====
```

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|------------|-------------------|--------------|---------------|
| PCB-1016 | (ND) ND | .94 | .24 .24 |
| PCB-1221 | (ND) ND | .94 | .24 .24 |
| PCB-1232 | (ND) ND | .94 | .24 .24 |
| PCB-1242 | (ND) ND | .94 | .24 .24 |
| PCB-1248 | (ND) ND | .94 | .24 .24 |
| PCB-1254 | (ND) ND | .94 | .24 .24 |
| PCB-1260 | (ND) ND | .94 | .24 .24 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| TETRACHLORO-M-XYLENE | (79) 78 | 30-130 |
| DECACHLOROBIPHENYL | (88) 78 | 30-130 |

RL: Reporting Limit
 Left of | is related to first column ; Right of | related to second column
 () included the reported column
 * Out side of QC Limit

SW3520C/8082
 PCBs

```

=====
Client      : TETRA TECH FW, INC.      Date Collected: 05/24/04
Project     : MFA, SITE 1, CTO 86      Date Received: 05/26/04
Batch No.   : 04E228                  Date Extracted: 05/27/04 16:00
Sample ID: 86-S1-003                 Date Analyzed: 06/02/04 18:11
Lab Samp ID: E228-04                 Dilution Factor: .94
Lab File ID: SF02014A                Matrix       : WATER
Ext Btch ID: CPE026W                 % Moisture    : NA
Calib. Ref.: SF02006A                 Instrument ID : GCT008
=====
  
```

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|------------|-------------------|--------------|---------------|
| PCB-1016 | (ND) ND | .94 | .24 .24 |
| PCB-1221 | (ND) ND | .94 | .24 .24 |
| PCB-1232 | (ND) ND | .94 | .24 .24 |
| PCB-1242 | (ND) ND | .94 | .24 .24 |
| PCB-1248 | (ND) ND | .94 | .24 .24 |
| PCB-1254 | (ND) ND | .94 | .24 .24 |
| PCB-1260 | (ND) ND | .94 | .24 .24 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| TETRACHLORO-M-XYLENE | (87) 90 | 30-130 |
| DECACHLOROBIPHENYL | (96) 84 | 30-130 |

RL: Reporting Limit
 Left of | is related to first column ; Right of | related to second column
 () included the reported column
 * Out side of QC Limit

CASE NARRATIVE

CLIENT: TETRA TECH FW, INC.

PROJECT: MFA, SITE 1, CTO 86

SDG: 04E228

**METHOD 7470A
DISSOLVED MERCURY BY COLD VAPOR**

Three (3) water samples were received on 05/26/04 for Dissolved Mercury analysis by Method 7470A in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW846, 3rd ed.

1. Holding Time

Analysis met the holding time criteria.

2. Method Blank

Method blank was free of contamination at the reporting limit.

3. Lab Control Sample/Lab Control Sample Duplicate

Lab control results were within the control limits.

4. Serial Dilution

Sample E241-01 from another SDG was analyzed for serial dilution. % Difference was not evaluated since diluted sample result was not detected. Analytical spike was performed and met the QC limits.

5. Matrix Spike/Matrix Spike Duplicate

MS/MSD sample was designated in this SDG.

6. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criteria were met.

Samples were diluted out due to matrix interference.

METHOD 7470A
DISSOLVED MERCURY BY COLD VAPOR

Client : TETRA TECH FW, INC.
Project : MFA, SITE 1, CTD 86
Batch No. : 04E228

Matrix : WATER
Instrument ID : T1047

| SAMPLE ID | EMAX SAMPLE ID | RESULTS (ug/L) | DLF | MOIST | RL (ug/L) | MDL (ug/L) | Analysis DATE/TIME | Extraction DATE/TIME | LFID | CAL REF | PREP BATCH | Collection DATE/TIME | Received DATE/TIME |
|-----------|-------------------|-------------------|-----|-------|--------------|---------------|-----------------------|-------------------------|------------|------------|------------|-------------------------|-----------------------|
| MBLK1W | HGF008B8 | ND | 1 | NA | .2 | .1 | 06/08/0410:49 | 06/07/0415:00 | M47F009010 | M47F009008 | HGF008W | NA | 06/07/04 |
| LCS1W | HGF008B1 | 4.72 | 1 | NA | .2 | .1 | 06/08/0410:52 | 06/07/0415:00 | M47F009011 | M47F009008 | HGF008W | NA | 06/07/04 |
| LCD1W | HGF008B1 | 4.76 | 1 | NA | .2 | .1 | 06/08/0410:54 | 06/07/0415:00 | M47F009012 | M47F009008 | HGF008W | NA | 06/07/04 |
| 86-SI-001 | E228-01 | ND | 20 | NA | 4 | 2 | 06/08/0412:45 | 06/07/0415:00 | M47F009063 | M47F009054 | HGF008W | 05/24/04 | 05/26/04 |
| 86-SI-002 | E228-03 | ND | 20 | NA | 4 | 2 | 06/08/0412:47 | 06/07/0415:00 | M47F009064 | M47F009054 | HGF008W | 05/24/04 | 05/26/04 |
| 86-SI-003 | E228-04 | ND | 20 | NA | 4 | 2 | 06/08/0412:54 | 06/07/0415:00 | M47F009067 | M47F009065 | HGF008W | 05/24/04 | 05/26/04 |

RL: Reporting Limit

7003

**Laboratory Data Consultants, Inc.
Data Validation Report**

Project/Site Name: Moffett Airfield, CTO 86

Collection Date: May 24, 2004

LDC Report Date: July 6, 2004

Matrix: Water

Parameters: Dissolved Mercury

Validation Level: EPA Level III & IV

Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 04E228

Sample Identification

86-S1-001

86-S1-002**

86-S1-003

**Indicates sample underwent EPA Level IV review

Introduction

This data review covers 3 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 7470A for Dissolved Mercury.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (February 1994) as there are no current guidelines for the method stated above.

A table summarizing all data qualification flags is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from specified protocols or is of technical advisory nature.

Blanks are summarized in Section III.

Field duplicates are summarized in Section XIII.

Samples indicated by a double asterisk on the front cover underwent a EPA Level IV review. A EPA Level III review was performed on all of the other samples. Raw data were not evaluated for the samples reviewed by Level III criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UU Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

An initial calibration was performed.

The frequency and analysis criteria of the initial calibration verification (ICV) and continuing calibration verification (CCV) were met.

III. Blanks

Method blanks were reviewed for each matrix as applicable.

Data qualification by the initial, continuing and preparation blanks (ICB/CCB/PBs) was based on the maximum contaminant concentration in the ICB/CCB/PBs in the analysis of each analyte. No contaminant concentrations were found in the initial, continuing and preparation blanks.

IV. ICP Interference Check Sample (ICS) Analysis

ICP interference check sample was not required by the method.

V. Matrix Spike Analysis

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

| Spike ID (Associated Samples) | Analyte | MS (%R) (Limits) | MSD (%R) (Limits) | RPD (Limits) | Flag | A or P |
|---------------------------------------------------|---------|---------------------|----------------------|-----------------|-----------------------------------------|--------|
| 86-S1-010MS/MSD (All samples in SDG 04E228) | Mercury | 66 (75-125) | 64 (75-125) | - | J (all detects) UJ (all non-detects) | A |

VI. Duplicate Sample Analysis

The laboratory has indicated that there were no duplicate (DUP) analyses specified for the samples in this SDG, and therefore duplicate analyses were not performed for this SDG.

VII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Internal Standards

ICP-MS was not utilized in this SDG.

IX. Furnace Atomic Absorption QC

Graphite furnace atomic absorption was not utilized in this SDG.

X. ICP Serial Dilution

ICP serial dilution was not required by the method.

XI. Sample Result Verification

All sample result verifications met validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XII. Overall Assessment of Data

Data flags have been summarized at the end of this report.

XIII. Field Duplicates

Samples 86-S1-001 and 86-S1-002** were identified as field duplicates. No mercury was detected in any of the samples.

XIV. Field Blanks

No field blanks were identified in this SDG.

Moffett Airfield, CTO 86

Dissolved Mercury - Data Qualification Summary - SDG 04E228

| SDG | Sample | Analyte | Flag | A or P | Reason |
|--------|---------------------------------------|---------|-----------------------------------------|--------|----------------------------------------------|
| 04E228 | 86-S1-001 86-S1-002** 86-S1-003 | Mercury | J (all detects) UJ (all non-detects) | A | Matrix spike/Matrix spike duplicates (%R) |

Moffett Airfield, CTO 86

Dissolved Mercury - Laboratory Blank Data Qualification Summary - SDG 04E228

No Sample Data Qualified in this SDG

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Moffett Airfield, CTO 86
Collection Date: May 24, 2004
LDC Report Date: July 1, 2004
Matrix: Water
Parameters: Polychlorinated Biphenyls
Validation Level: EPA Level III & IV
Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 04E228

Sample Identification

86-S1-001
86-S1-002**
86-S1-003

**Indicates sample underwent EPA Level IV review.

Introduction

This data review covers 3 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8082 for Polychlorinated Biphenyls.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification flags is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XIV.

Samples indicated by a double asterisk on the front cover underwent a EPA Level IV review. A EPA Level III review was performed on all other samples. Raw data were not evaluated for the samples reviewed by Level III criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UU Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/ECD Instrument Performance Check

Instrument performance data were not provided and therefore not reviewed.

III. Initial Calibration

Initial calibration of multicomponent compounds was performed for the primary (quantitation) column as required by the method.

The percent relative standard deviations (%RSD) were less than or equal to 20.0% for all compounds.

Retention time windows were evaluated and considered technically acceptable for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples on which a Level III review was performed.

IV. Continuing Calibration

Continuing calibration was performed at required frequencies.

The percent differences (%D) of calibration factors in continuing standard mixtures were within the 15.0% QC limits.

Initial calibration verification (ICV) percent differences (%D) were less than or equal to 20.0% for all compounds.

Retention time windows were evaluated and considered technically acceptable for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples on which a Level III review was performed.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No polychlorinated biphenyl contaminants were found in the method blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Pesticide Cleanup Checks

a. Florisil Cartridge Check

Florisil cleanup was not required and therefore not performed in this SDG.

b. GPC Calibration

GPC cleanup was not required and therefore not performed in this SDG.

XI. Target Compound Identification

All target compound identifications were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XII. Compound Quantitation and Reported CRQLs

All compound quantitation and CRQLs were within validation criteria for samples on which an EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XIII. Overall Assessment of Data

Data flags are summarized at the end of this report.

XIV. Field Duplicates

Samples 86-S1-001 and 86-S1-002** were identified as field duplicates. No polychlorinated biphenyls were detected in any of the samples.

XV. Field Blanks

No field blanks were identified in this SDG.

Moffett Airfield, CTO 86

Polychlorinated Biphenyls - Data Qualification Summary - SDG 04E228

No Sample Data Qualified in this SDG

Moffett Airfield, CTO 86

Polychlorinated Biphenyls - Laboratory Blank Data Qualification Summary - SDG 04E228

No Sample Data Qualified in this SDG

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Moffett Airfield, CTO 86

Collection Date: May 24, 2004

LDC Report Date: July 2, 2004

Matrix: Water

Parameters: Chlorinated Pesticides

Validation Level: EPA Level III & IV

Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 04E228

Sample Identification

86-S1-001

86-S1-002**

86-S1-003

**Indicates sample underwent EPA Level IV review.

Introduction

This data review covers 3 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8081A for Chlorinated Pesticides.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification flags is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XIV.

Samples indicated by a double asterisk on the front cover underwent a EPA Level IV review. A EPA Level III review was performed on all other samples. Raw data were not evaluated for the samples reviewed by Level III criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UU Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/ECD Instrument Performance Check

Instrument performance was acceptable unless noted otherwise under initial calibration and continuing calibration sections.

III. Initial Calibration

Initial calibration of single and multicomponent compounds was performed for the primary (quantitation) column and confirmation column as required by this method.

The percent relative standard deviations (%RSD) were less than or equal to 20.0% for all compounds.

Retention time windows were evaluated and considered technically acceptable for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples on which a Level III review was performed.

IV. Continuing Calibration

Continuing calibration was performed at required frequencies.

The percent differences (%D) of calibration factors in continuing standard mixtures were within the 15.0% QC limits.

Initial calibration verification (ICV) percent differences (%D) were less than or equal to 20.0% for all compounds.

Retention time windows were evaluated and considered technically acceptable for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples on which a Level III review was performed.

The individual 4,4'-DDT and Endrin breakdowns were less than 15.0% .

V. Blanks

Method blanks were reviewed for each matrix as applicable. No chlorinated pesticide contaminants were found in the method blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Pesticide Cleanup Checks

a. Florisil Cartridge Check

Florisil cleanup was not required and therefore not performed in this SDG.

b. GPC Calibration

GPC cleanup was not required and therefore not performed in this SDG.

XI. Target Compound Identification

All target compound identifications were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XII. Compound Quantitation and Reported CRQLs

All compound quantitation and CRQLs were within validation criteria for samples on which an EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XIII. Overall Assessment of Data

Data flags are summarized at the end of this report.

XIV. Field Duplicates

Samples 86-S1-001 and 86-S1-002** were identified as field duplicates. No chlorinated pesticides were detected in any of the samples.

XV. Field Blanks

No field blanks were identified in this SDG.

Moffett Airfield, CTO 86

Chlorinated Pesticides - Data Qualification Summary - SDG 04E228

No Sample Data Qualified in this SDG

Moffett Airfield, CTO 86

Chlorinated Pesticides - Laboratory Blank Data Qualification Summary - SDG 04E228

No Sample Data Qualified in this SDG

**Laboratory Data Consultants, Inc.
Data Validation Report**

Project/Site Name: Moffett Field, CTO 86
Collection Date: May 24, 2004
LDC Report Date: July 2, 2004
Matrix: Water
Parameters: Semivolatiles
Validation Level: EPA Level III & IV
Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 04E228

Sample Identification

86-S1-001
86-S1-002**
86-S1-003

**Indicates sample underwent EPA Level IV review

Introduction

This data review covers 3 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8270C for Semivolatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XVI.

Samples indicated by a double asterisk on the front cover underwent a EPA Level IV review. A EPA Level III review was performed on all of the other samples. Raw data were not evaluated for the samples reviewed by Level III criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

The mean percent relative standard deviation (%RSD) for selected compounds was less than or equal to 15.0% and less than or equal to 30.0% for selected individual compounds.

A curve fit, based on the initial calibration, was established for quantitation for selected compounds. The coefficient of determination (r^2) was greater than or equal to 0.990 .

Average relative response factors (RRF) for all system performance check compounds (SPCCs) were within method criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

The mean percent difference (%D) between the initial calibration RRF and the continuing calibration RRF was less than or equal to 20.0% and less than or equal to 25.0% for individual compounds.

For the purposes of technical evaluation, all compounds were evaluated against the 25.0% (%D) National Functional Guideline criteria. Unless noted above, all compounds were within the validation criteria.

Initial calibration verification (ICV) percent differences (%D) were less than or equal to 20.0% for all compounds.

All of the continuing calibration RRF values for all system performance check compounds (SPCCs) were within method and validation criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No semivolatile contaminants were found in the method blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XII. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XV. Overall Assessment

Data flags have been summarized at the end of the report.

XVI. Field Duplicates

Samples 86-S1-001 and 86-S1-002** were identified as field duplicates. No semivolatiles were detected in any of the samples with the following exceptions:

| Compound | Concentration (ug/L) | | RPD |
|----------------------------|----------------------|-------------|----------------|
| | 86-S1-001 | 86-S1-002** | |
| Caprolactam | 9.4U | 6.2 | Not calculable |
| Bis(2-ethylhexyl)phthalate | 19U | 42 | Not calculable |

XVII. Field Blanks

No field blanks were identified in this SDG.

Moffett Field, CTO 86

Semivolatiles - Data Qualification Summary - SDG 04E228

No Sample Data Qualified in this SDG

Moffett Field, CTO 86

Semivolatiles - Laboratory Blank Data Qualification Summary - SDG 04E228

No Sample Data Qualified in this SDG

**Laboratory Data Consultants, Inc.
Data Validation Report**

Project/Site Name: Moffett Airfield, CTO 86

Collection Date: May 24, 2004

LDC Report Date: July 2, 2004

Matrix: Water

Parameters: Volatiles

Validation Level: EPA Level III & IV

Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 04E228

Sample Identification

86-S1-001

86-S1-014

86-S1-002**

86-S1-003

**Indicates sample underwent EPA Level IV review

Introduction

This data review covers 4 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8260B for Volatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XVI.

Samples indicated by a double asterisk on the front cover underwent a EPA Level IV review. A EPA Level III review was performed on all of the other samples. Raw data were not evaluated for the samples reviewed by Level III criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UU Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met with the following exceptions:

| Sample | Compound | Total Days From Sample Collection Until Extraction | Required Holding Time (in Days) From Sample Collection Until Extraction | Flag | A or P |
|-----------|-------------------|----------------------------------------------------|-------------------------------------------------------------------------|-----------------------------------------|--------|
| 86-S1-003 | All TCL compounds | 9 | 7 | J (all detects) UJ (all non-detects) | P |

All samples were received in good condition with the following exceptions:

| Sample | Compound | Finding | Criteria | Flag | A or P |
|-----------|-------------------|-----------------------------------------------------|----------------------------------------------------------|-----------------------------------------|--------|
| 86-S1-003 | All TCL compounds | Air bubbles were apparent in the sample containers. | There should be no air bubbles in the sample containers. | J (all detects) UJ (all non-detects) | A |

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

The mean percent relative standard deviation (%RSD) was less than or equal to 15.0% and less than or equal to 30.0% for individual compounds.

A curve fit, based on the initial calibration, was established for quantitation for selected samples. The coefficient of determination (r^2) was greater than or equal to 0.990.

Average relative response factors (RRF) for all system performance check compounds (SPCCs) were within method criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

The mean percent difference (%D) between the initial calibration RRF and the continuing calibration RRF was less than or equal to 20.0% and less than or equal to 25.0% for individual compounds with the following exceptions:

| Date | Compound | %D | Associated Samples | Flag | A or P |
|--------|-------------------------|------|---------------------------|-----------------------------------------|--------|
| 6/2/04 | Dichlorodifluoromethane | 37.1 | All samples in SDG 04E228 | J (all detects) UJ (all non-detects) | A |

For the purposes of technical evaluation, all compounds were evaluated against the 25.0% (%D) National Functional Guideline criteria. Unless noted above, all compounds were within the validation criteria.

Initial calibration verification (ICV) percent differences (%D) were less than or equal to 20.0% for all compounds with the following exceptions:

| Date | Compound | %D | Associated Samples | Flag | A or P |
|---------|--------------------------------------------------------------------------|------------------------------|---------------------------|-----------------------------------------|--------|
| 5/27/04 | Chloromethane Vinyl chloride 1,1-Dichloropropene n-Butylbenzene | 25.0 20.6 23.8 22.1 | All samples in SDG 04E228 | J (all detects) UJ (all non-detects) | P |

All of the continuing calibration RRF values for all system performance check compounds (SPCCs) were within method and validation criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No volatile contaminants were found in the method blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XII. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XV. Overall Assessment of Data

Data flags have been summarized at the end of the report.

XVI. Field Duplicates

Samples 86-S1-001 and 86-S1-002** were identified as field duplicates. No volatiles were detected in any of the samples with the following exceptions:

| Compound | Concentration (ug/L) | | RPD |
|----------|----------------------|-------------|-----|
| | 86-S1-001 | 86-S1-002** | |
| Toluene | 0.54 | 0.71 | 27 |

XVII. Field Blanks

Sample 86-S1-014 was identified as a trip blank. No volatile contaminants were found in this blank.

Moffett Airfield, CTO 86**Volatiles - Data Qualification Summary - SDG 04E228**

| SDG | Sample | Compound | Flag | A or P | Reason |
|--------|----------------------------------------------------|--------------------------------------------------------------------------|-----------------------------------------|--------|------------------------------------|
| 04E228 | 86-S1-003 | All TCL compounds | J (all detects) UJ (all non-detects) | P | Technical holding times |
| 04E228 | 86-S1-003 | All TCL compounds | J (all detects) UJ (all non-detects) | A | Sample condition |
| 04E228 | 86-S1-001 86-S1-014 86-S1-002** 86-S1-003 | Dichlorodifluoromethane | J (all detects) UJ (all non-detects) | A | Continuing calibration (%D) |
| 04E228 | 86-S1-001 86-S1-014 86-S1-002** 86-S1-003 | Chloromethane Vinyl chloride 1,1-Dichloropropene n-Butylbenzene | J (all detects) UJ (all non-detects) | P | Continuing calibration (ICV %D) |

Moffett Airfield, CTO 86**Volatiles - Laboratory Blank Data Qualification Summary - SDG 04E228**

No Sample Data Qualified in this SDG



CHAIN-OF-CUSTODY RECORD

| PROJECT NAME CTD 86- Site 1- 2nd Qtr. | | PURCHASE ORDER NO. # 20848- Task 28 | | ANALYSES REQUIRED | | | | | | | | | | LABORATORY NAME EMOX | | Project Information Section Do not submit to Laboratory | | | | | | | | | |
|---------------------------------------------------|----------------|-----------------------------------------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|---|---|---|---|---|---|-----------------------------------------------------------------|---|------------------------------------------------------------------|---|----------|----------|-----------------------|-----|----|--------------------------------------------------------|--|--|
| PROJECT LOCATION Mullett | | PROJECT NO. 1990.086E | | <div style="display: flex; justify-content: space-between;"> <div>epa 8260B extended list</div> <div>epa 8260C extended list</div> <div>epa 8081A extended list</div> <div>epa 8082 extended list</div> <div>epa 200.8 Dis. Metals</div> <div>epa 7700A Dis. Mercury</div> </div> | | | | | | | | | | LABORATORY ID (FOR LABORATORY) 046241 (K2403969) metal | | | | | | | | | | | |
| SAMPLER NAME J. Harrison | | SAMPLER SIGNATURE <i>[Signature]</i> | | | | | | | | | | | | | | | | | | | | | | | |
| PROJECT CONTACT Lisa Sienkewski | | AIRBILL NUMBER 840692054106 | | | | | | | | | | | | | | | | | | | | | | | |
| SAMPLE ID | DATE COLLECTED | TIME COLLECTED | NO. OF CONTAINER | LEVEL | | TYPE | T A T | | | | | | | | | | | COMMENTS | LOCATION | DEPTH | | QC | | | |
| | | | | 3 | 4 | | | | | | | | | | | | | | | START | END | | | | |
| 86-S1-004 | 5/25/04 | 1025 | 11 | X | | W | day | X | X | X | X | X | X | X | X | X | X | X | X | W1-19 | | | Reg | | |
| 86-S1-015 | 5/25/04 | 1010 | 3 | X | | W | day | X | X | X | X | X | X | X | X | X | X | X | X | Trip Blank | | | Reg | | |
| 86-S1-006 | 5/25/04 | 1115 | 11 | X | | W | day | X | X | X | X | X | X | X | X | X | X | X | X | W1-14 | | | Reg | | |
| 86-S1-007 | 5/25/04 | 1130 | 11 | X | | W | day | X | X | X | X | X | X | X | X | X | X | X | X | Field Duplicate W1-14 | | | Reg | | |
| 86-S1-008 | 5/25/04 | 1340 | 11 | X | | W | day | X | X | X | X | X | X | X | X | X | X | X | X | W1-12R | | | Reg | | |
| 86-S1-009 | 5/26/04 | 0800 | 11 | X | | W | day | X | X | X | X | X | X | X | X | X | X | X | X | W1-22 | | | Reg | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
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| RELINQUISHED BY (Signature) <i>[Signature]</i> | | DATE 5/26/04 | | RECEIVED BY (Signature) FLOX | | LABORATORY INSTRUCTIONS/COMMENTS Mercury + Metals were field filtered | | | | | | | | | | | | | | | | | SAMPLING COMMENT: Site 1 2nd Qtr. 10/04 Q2/04 | | |
| COMPANY HFW | | TIME 1300 | | COMPANY | | | | | | | | | | | | | | | | | | | | | |
| RELINQUISHED BY (Signature) | | DATE | | RECEIVED BY (Signature) | | COMPOSITE DESCRIPTION | | | | | | | | | | | | | | | | | | | |
| COMPANY | | TIME | | COMPANY | | | | | | | | | | | | | | | | | | | | | |
| RELINQUISHED BY (Signature) | | DATE | | RECEIVED BY (Signature) | | SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY) | | | | | | | | | | | | | | | | | | | |
| COMPANY | | TIME | | COMPANY | | TEMPERATURE _____ SAMPLE CONDITION: <input type="checkbox"/> INTACT <input type="checkbox"/> BROKEN COOLER SEAL <input type="checkbox"/> INTACT <input type="checkbox"/> BROKEN | | | | | | | | | | | | | | | | | | | |

CASE NARRATIVE

CLIENT: TETRA TECH FW, INC.

PROJECT: MFA, SITE 1, CTO 86

SDG: 04E241

**SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS**

Six (6) water samples were received on 05/27/04 for Volatile Organic analysis by Method 5030B/8260B in accordance with USEPA SW846, 3rd edition.

1. Holding Time

Samples E241-01, -03, -04 and -06 had HCL preserved label but pH check were at 7. They were analyzed on the 8th day after sampling, one day out of holding time for unpreserved samples.

2. Tuning and Calibration

Tuning and calibration were carried out at 12 hours interval. All QC requirements were met.

3. Method Blank

Method blanks were free of contamination at the reporting limit.

4. Surrogate Recovery

Recoveries were within QC limits.

5. Lab Control Sample/Lab Control Sample Duplicate

All recoveries were within QC limits.

6. Matrix Spike/Matrix Spike Duplicate

No MS/MSD sample was designated in this SDG.

7. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criteria were met with the aforementioned exception.

SW 50308/82608
VOLATILE ORGANICS BY GC/MS

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Client       : TETRA TECH FW, INC.      Date Collected: 05/25/04
Project      : MFA, SITE 1, CTO 86     Date Received: 05/27/04
Batch No.    : 04E241                  Date Extracted: 06/02/04 09:23
Sample ID    : 86-S1-004                Date Analyzed: 06/02/04 09:23
Lab Samp ID  : E241-01                  Dilution Factor: 1
Lab File ID  : RFB030                    Matrix: WATER
Ext Btch ID  : V003F04                  % Moisture: NA
Calib. Ref.  : REB756                    Instrument ID: T-003
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| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 1,1,1,2-TETRACHLOROETHANE | ND | 5 | 2 |
| 1,1,1-TRICHLOROETHANE | ND | 5 | 2 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 5 | 2 |
| 1,1,2-TRICHLOROETHANE | ND | 5 | 2 |
| 1,1-DICHLOROETHANE | ND | 5 | 2 |
| 1,1-DICHLOROETHENE | ND | 5 | 2 |
| 1,1-DICHLOROPROPENE | ND | 5 | 2 |
| 1,2,3-TRICHLOROBENZENE | ND | 5 | 2 |
| 1,2,3-TRICHLOROPROPANE | ND | 5 | 2 |
| 1,2,4-TRICHLOROBENZENE | ND | 5 | 2 |
| 1,2,4-TRIMETHYLBENZENE | ND | 5 | 2 |
| 1,2-DIBROMO-3-CHLOROPROPANE | ND | 5 | 2 |
| 1,2-DICHLOROBENZENE | ND | 5 | 2 |
| 1,2-DICHLOROETHANE | ND | 5 | 2 |
| 1,2-DICHLOROPROPANE | ND | 5 | 2 |
| 1,3,5-TRIMETHYLBENZENE | ND | 5 | 2 |
| 1,3-DICHLOROBENZENE | ND | 5 | 2 |
| 1,3-DICHLOROPROPANE | ND | 5 | 2 |
| 1,4-DICHLOROBENZENE | ND | 5 | 2 |
| 2,2-DICHLOROPROPANE | ND | 5 | 2 |
| 2-BUTANONE | ND | 5 | 2 |
| 2-CHLOROTOLUENE | ND | 5 | 2 |
| 2-HEXANONE | ND | 5 | 2 |
| 4-CHLOROTOLUENE | ND | 5 | 2 |
| 4-METHYL-2-PENTANONE | ND | 5 | 2 |
| ACETONE | ND | 5 | 2 |
| BENZENE | ND | 5 | 2 |
| BROMOBENZENE | ND | 5 | 2 |
| BROMOCHLOROMETHANE | ND | 5 | 2 |
| BROMODICHLOROMETHANE | ND | 5 | 2 |
| BROMOFORM | ND | 5 | 2 |
| BROMOMETHANE | ND | 5 | 2 |
| CARBON DISULFIDE | ND | 5 | 2 |
| CARBON TETRACHLORIDE | ND | 5 | 2 |
| CHLOROBENZENE | ND | 5 | 2 |
| CHLOROETHANE | ND | 5 | 2 |
| CHLOROFORM | ND | 5 | 2 |
| CHLOROMETHANE | ND | 5 | 2 |
| CIS-1,2-DICHLOROETHENE | ND | 5 | 2 |
| CIS-1,3-DICHLOROPROPENE | ND | 5 | 2 |
| DIBROMOCHLOROMETHANE | ND | 5 | 2 |
| DIBROMOMETHANE | ND | 5 | 2 |
| DICHLORODIFLUOROMETHANE | ND | 5 | 2 |
| ETHYLBENZENE | ND | 5 | 2 |
| HEXACHLOROBUTADIENE | ND | 5 | 2 |
| ISOPROPYL BENZENE | ND | 5 | 2 |
| M/P-XYLENES | ND | 5 | 2 |
| METHYLENE CHLORIDE | ND | 5 | 2 |
| N-BUTYLBENZENE | ND | 5 | 2 |
| N-PROPYLBENZENE | ND | 5 | 2 |
| NAPHTHALENE | ND | 5 | 2 |
| O-XYLENE | ND | 5 | 2 |
| P-ISOPROPYLTOLUENE | ND | 5 | 2 |
| SEC-BUTYLBENZENE | ND | 5 | 2 |
| STYRENE | ND | 5 | 2 |
| TERT-BUTYLBENZENE | ND | 5 | 2 |
| TETRACHLOROETHYLENE | ND | 5 | 2 |
| TOLUENE | ND | 5 | 2 |
| TRANS-1,2-DICHLOROETHENE | ND | 5 | 2 |
| TRANS-1,3-DICHLOROPROPENE | ND | 5 | 2 |
| TRICHLOROETHENE | ND | 5 | 2 |
| TRICHLOROFUOROMETHANE | ND | 5 | 2 |
| VINYL CHLORIDE | ND | 5 | 2 |
| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT | |
| 1,2-DICHLOROETHANE-D4 | 133 | 62-139 | |
| TOLUENE-D8 | 100 | 75-125 | |
| BROMOFLUOROBENZENE | 93 | 75-125 | |

R.L. : Reporting limit
 * : Out of QC
 E : Exceeded calibration range
 B : Found in associated method blank
 J : Value between R.L. and MDL
 D : Value from dilution analysis
 D.O. : Diluted out

2004

SW 50308/82608
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH FW, INC. Date Collected: 05/25/04
Project : MFA, SITE 1, CTO 86 Date Received: 05/27/04
Batch No. : 04E241 Date Extracted: 06/01/04 10:07
Sample ID: 86-S1-015 Date Analyzed: 06/01/04 10:07
Lab Samp ID: E241-02 Dilution Factor: 1
Lab File ID: REB959 Matrix : WATER
Ext Btch ID: V003E95 % Moisture : NA
Calib. Ref.: REB756 Instrument ID : T-003

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 1,1,1,2-TETRACHLOROETHANE | ND | 5 | 2 |
| 1,1,1-TRICHLOROETHANE | ND | 5 | 2 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 1 | 2 |
| 1,1,2-TRICHLOROETHANE | ND | 5 | 2 |
| 1,1-DICHLOROETHANE | ND | 5 | 2 |
| 1,1-DICHLOROETHENE | ND | 5 | 2 |
| 1,1-DICHLOROPROPENE | ND | 5 | 2 |
| 1,2,3-TRICHLOROBENZENE | ND | 5 | 2 |
| 1,2,3-TRICHLOROPROPANE | ND | 5 | 2 |
| 1,2,4-TRICHLOROBENZENE | ND | 5 | 2 |
| 1,2,4-TRIMETHYLBENZENE | ND | 5 | 2 |
| 1,2-DIBROMO-3-CHLOROPROPANE | ND | 5 | 2 |
| 1,2-DICHLOROBENZENE | ND | 5 | 2 |
| 1,2-DICHLOROETHANE | ND | 5 | 2 |
| 1,2-DICHLOROPROPANE | ND | 5 | 2 |
| 1,3,5-TRIMETHYLBENZENE | ND | 5 | 2 |
| 1,3-DICHLOROBENZENE | ND | 5 | 2 |
| 1,3-DICHLOROPROPANE | ND | 5 | 2 |
| 1,4-DICHLOROBENZENE | ND | 5 | 2 |
| 2,2-DICHLOROPROPANE | ND | 5 | 2 |
| 2-BUTANONE | ND | 5 | 2 |
| 2-CHLOROTOLUENE | ND | 5 | 2 |
| 2-HEXANONE | ND | 5 | 2 |
| 4-CHLOROTOLUENE | ND | 5 | 2 |
| 4-METHYL-2-PENTANONE | ND | 5 | 2 |
| ACETONE | ND | 5 | 2 |
| BENZENE | ND | 5 | 2 |
| BROMOBENZENE | ND | 5 | 2 |
| BROMOCHLOROMETHANE | ND | 5 | 2 |
| BROMODICHLOROMETHANE | ND | 5 | 2 |
| BROMOFORM | ND | 5 | 2 |
| BROMOMETHANE | ND | 5 | 2 |
| CARBON DISULFIDE | ND | 5 | 2 |
| CARBON TETRACHLORIDE | ND | 5 | 2 |
| CHLOROBENZENE | ND | 5 | 2 |
| CHLOROETHANE | ND | 5 | 2 |
| CHLOROFORM | ND | 5 | 2 |
| CHLOROMETHANE | ND | 5 | 2 |
| CIS-1,2-DICHLOROETHENE | ND | 5 | 2 |
| CIS-1,3-DICHLOROPROPENE | ND | 5 | 2 |
| DIBROMOCHLOROMETHANE | ND | 5 | 2 |
| DIBROMOMETHANE | ND | 5 | 2 |
| DICHLORODIFLUOROMETHANE | ND | 5 | 2 |
| ETHYLBENZENE | ND | 5 | 2 |
| HEXACHLOROBUTADIENE | ND | 5 | 2 |
| ISOPROPYL BENZENE | ND | 5 | 2 |
| M/P-XYLENES | ND | 5 | 2 |
| METHYLENE CHLORIDE | ND | 5 | 2 |
| N-BUTYLBENZENE | ND | 5 | 2 |
| N-PROPYLBENZENE | ND | 5 | 2 |
| NAPHTHALENE | ND | 5 | 2 |
| O-XYLENE | ND | 5 | 2 |
| P-ISOPROPYLTOLUENE | ND | 5 | 2 |
| SEC-BUTYLBENZENE | ND | 5 | 2 |
| STYRENE | ND | 5 | 2 |
| TERT-BUTYLBENZENE | ND | 5 | 2 |
| TETRACHLOROETHYLENE | ND | 5 | 2 |
| TOLUENE | ND | 5 | 2 |
| TRANS-1,2-DICHLOROETHENE | ND | 5 | 2 |
| TRANS-1,3-DICHLOROPROPENE | ND | 5 | 2 |
| TRICHLOROETHENE | ND | 5 | 2 |
| TRICHLOROFLUOROMETHANE | ND | 5 | 2 |
| VINYL CHLORIDE | ND | 5 | 2 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|-----------------------|------------|----------|
| 1,2-DICHLOROETHANE-D4 | 118 | 62-139 |
| TOLUENE-D8 | 109 | 75-125 |
| BROMOFLUOROBENZENE | 96 | 75-125 |

R.L. : Reporting limit
* : Out of QC
E : Exceeded calibration range
B : Found in associated method blank
J : Value between R.L. and MDL
D : Value from dilution analysis
D.O. : Diluted out

2005

SW 50308/82608
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH FW, INC. Date Collected: 05/25/04
Project : MFA SITE 1, CTO 86 Date Received: 05/27/04
Batch No. : 04E241 Date Extracted: 06/02/04 10:01
Sample ID: 86-S1-006 Date Analyzed: 06/02/04 10:01
Lab Samp ID: E241-03 Dilution Factor: 1
Lab File ID: RFB031 Matrix : WATER
Ext Btch ID: V003F04 % Moisture : NA
Calib. Ref.: REB756 Instrument ID : T-003

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 1,1,1,2-TETRACHLOROETHANE | ND | .5 | .2 |
| 1,1,1-TRICHLOROETHANE | ND | .5 | .2 |
| 1,1,2,2-TETRACHLOROETHANE | ND | .1 | .3 |
| 1,1,2-TRICHLOROETHANE | ND | .5 | .2 |
| 1,1-DICHLOROETHANE | ND | .5 | .2 |
| 1,1-DICHLOROETHENE | ND | .5 | .2 |
| 1,1-DICHLOROPROPENE | ND | .5 | .2 |
| 1,2,3-TRICHLOROBENZENE | ND | .5 | .2 |
| 1,2,3-TRICHLOROPROPANE | ND | .5 | .2 |
| 1,2,4-TRICHLOROBENZENE | ND | .5 | .2 |
| 1,2,4-TRIMETHYLBENZENE | ND | .5 | .2 |
| 1,2-DIBROMO-3-CHLOROPROPANE | ND | .5 | .2 |
| 1,2-DICHLOROBENZENE | ND | .5 | .2 |
| 1,2-DICHLOROETHANE | ND | .5 | .2 |
| 1,2-DICHLOROPROPANE | ND | .5 | .2 |
| 1,3,5-TRIMETHYLBENZENE | ND | .5 | .2 |
| 1,3-DICHLOROBENZENE | ND | .5 | .2 |
| 1,3-DICHLOROPROPANE | ND | .5 | .2 |
| 1,4-DICHLOROBENZENE | ND | .5 | .2 |
| 2,2-DICHLOROPROPANE | ND | .5 | .2 |
| 2-BUTANONE | ND | .5 | .2 |
| 2-CHLOROTOLUENE | ND | .5 | .2 |
| 2-HEXANONE | ND | .5 | .2 |
| 4-CHLOROTOLUENE | ND | .5 | .2 |
| 4-METHYL-2-PENTANONE | ND | .5 | .2 |
| ACETONE | ND | .5 | .2 |
| BENZENE | ND | .5 | .2 |
| BROMOBENZENE | ND | .5 | .2 |
| BROMOCHLOROMETHANE | ND | .5 | .2 |
| BROMODICHLOROMETHANE | ND | .5 | .2 |
| BROMOFORM | ND | .5 | .2 |
| BROMOMETHANE | ND | .5 | .2 |
| CARBON DISULFIDE | ND | .5 | .2 |
| CARBON TETRACHLORIDE | ND | .5 | .2 |
| CHLOROBENZENE | ND | .5 | .2 |
| CHLOROETHANE | ND | .5 | .2 |
| CHLOROFORM | ND | .5 | .2 |
| CHLOROMETHANE | ND | .5 | .2 |
| CIS-1,2-DICHLOROETHENE | ND | .5 | .2 |
| CIS-1,3-DICHLOROPROPENE | ND | .5 | .2 |
| DIBROMOCHLOROMETHANE | ND | .5 | .2 |
| DIBROMOMETHANE | ND | .5 | .2 |
| DICHLORODIFLUOROMETHANE | ND | .5 | .2 |
| ETHYLBENZENE | ND | .5 | .2 |
| HEXACHLOROBUTADIENE | ND | .5 | .2 |
| ISOPROPYL BENZENE | ND | .5 | .2 |
| M/P-XYLENES | ND | .5 | .2 |
| METHYLENE CHLORIDE | ND | .5 | .2 |
| N-BUTYLBENZENE | ND | .5 | .2 |
| N-PROPYLBENZENE | ND | .5 | .2 |
| NAPHTHALENE | ND | .5 | .2 |
| O-XYLENE | ND | .5 | .2 |
| P-ISOPROPYLTOLUENE | ND | .5 | .2 |
| SEC-BUTYLBENZENE | ND | .5 | .2 |
| STYRENE | ND | .5 | .2 |
| TERT-BUTYLBENZENE | ND | .5 | .2 |
| TETRACHLOROETHYLENE | ND | .5 | .2 |
| TOLUENE | ND | .5 | .2 |
| TRANS-1,2-DICHLOROETHENE | ND | .5 | .2 |
| TRANS-1,3-DICHLOROPROPENE | ND | .5 | .2 |
| TRICHLOROETHENE | ND | .5 | .2 |
| TRICHLOROFLUOROMETHANE | ND | .5 | .2 |
| VINYL CHLORIDE | ND | .5 | .2 |
| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT | |
| 1,2-DICHLOROETHANE-D4 | 129 | 62-139 | |
| TOLUENE-D8 | 101 | 75-125 | |
| BROMOFLUOROBENZENE | 99 | 75-125 | |

R.L. : Reporting limit
* : Out of QC
E : Exceeded calibration range
B : Found in associated method blank
J : Value between R.L. and MDL
D : Value from dilution analysis
D.O. : Diluted out

SW 50308/82608
VOLATILE ORGANICS BY GC/MS

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Client       : TETRA TECH FW, INC.      Date Collected: 05/25/04
Project      : MFA, SITE 1, CTD 86     Date Received: 05/27/04
Batch No.    : 04E241                  Date Extracted: 06/02/04 11:19
Sample ID    : 86-S1-007               Date Analyzed: 06/02/04 11:19
Lab Samp ID  : E241-04                  Dilution Factor: 1
Lab File ID  : RFB033                   Matrix          : WATER
Ext Btch ID  : V003F04                  % Moisture       : NA
Calib. Ref.  : REB756                   Instrument ID    : T-003
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| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 1,1,1,2-TETRACHLOROETHANE | ND | 5 | ND |
| 1,1,1-TRICHLOROETHANE | ND | 5 | ND |
| 1,1,2,2-TETRACHLOROETHANE | ND | 1 | ND |
| 1,1,2-TRICHLOROETHANE | ND | 1 | ND |
| 1,1-DICHLOROETHANE | ND | 1 | ND |
| 1,1-DICHLOROETHENE | ND | 1 | ND |
| 1,1-DICHLOROPROPENE | ND | 1 | ND |
| 1,2,3-TRICHLOROBENZENE | ND | 1 | ND |
| 1,2,3-TRICHLOROPROPANE | ND | 1 | ND |
| 1,2,4-TRICHLOROBENZENE | ND | 1 | ND |
| 1,2,4-TRIMETHYLBENZENE | ND | 1 | ND |
| 1,2-DIBROMO-3-CHLOROPROPANE | ND | 1 | ND |
| 1,2-DICHLOROBENZENE | ND | 1 | ND |
| 1,2-DICHLOROETHANE | ND | 1 | ND |
| 1,2-DICHLOROPROPANE | ND | 1 | ND |
| 1,3,5-TRIMETHYLBENZENE | ND | 1 | ND |
| 1,3-DICHLOROBENZENE | ND | 1 | ND |
| 1,3-DICHLOROPROPANE | ND | 1 | ND |
| 1,4-DICHLOROBENZENE | ND | 1 | ND |
| 1,2-DICHLOROPROPANE | ND | 1 | ND |
| 2-BUTANONE | ND | 1 | ND |
| 2-CHLOROTOLUENE | ND | 1 | ND |
| 2-HEXANONE | ND | 1 | ND |
| 4-CHLOROTOLUENE | ND | 1 | ND |
| 4-METHYL-2-PENTANONE | ND | 1 | ND |
| ACETONE | ND | 1 | ND |
| BENZENE | ND | 1 | ND |
| BROMOBENZENE | ND | 1 | ND |
| BROMOCHLOROMETHANE | ND | 1 | ND |
| BROMODICHLOROMETHANE | ND | 1 | ND |
| BROMOFORM | ND | 1 | ND |
| BROMOMETHANE | ND | 1 | ND |
| CARBON DISULFIDE | ND | 1 | ND |
| CARBON TETRACHLORIDE | ND | 1 | ND |
| CHLOROBENZENE | ND | 1 | ND |
| CHLOROETHANE | ND | 1 | ND |
| CHLOROFORM | ND | 1 | ND |
| CHLOROMETHANE | ND | 1 | ND |
| CIS-1,2-DICHLOROETHENE | ND | 1 | ND |
| CIS-1,3-DICHLOROPROPENE | ND | 1 | ND |
| DIBROMOCHLOROMETHANE | ND | 1 | ND |
| DIBROMOMETHANE | ND | 1 | ND |
| DICHLORODIFLUOROMETHANE | ND | 1 | ND |
| ETHYLBENZENE | ND | 1 | ND |
| HEXACHLOROBUTADIENE | ND | 1 | ND |
| ISOPROPYL BENZENE | ND | 1 | ND |
| M/P-XYLENES | ND | 1 | ND |
| METHYLENE CHLORIDE | ND | 1 | ND |
| N-BUTYLBENZENE | ND | 1 | ND |
| N-PROPYLBENZENE | ND | 1 | ND |
| NAPHTHALENE | ND | 1 | ND |
| O-XYLENE | ND | 1 | ND |
| P-ISOPROPYLTOLUENE | ND | 1 | ND |
| SEC-BUTYLBENZENE | ND | 1 | ND |
| STYRENE | ND | 1 | ND |
| TERT-BUTYLBENZENE | ND | 1 | ND |
| TETRACHLOROETHYLENE | ND | 1 | ND |
| TOLUENE | ND | 1 | ND |
| TRANS-1,2-DICHLOROETHENE | ND | 1 | ND |
| TRANS-1,3-DICHLOROPROPENE | ND | 1 | ND |
| TRICHLOROETHENE | ND | 1 | ND |
| TRICHLOROFLUOROMETHANE | ND | 1 | ND |
| VINYL CHLORIDE | ND | 1 | ND |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|-----------------------|------------|----------|
| 1,2-DICHLOROETHANE-D4 | 131 | 62-139 |
| TOLUENE-D8 | 109 | 75-125 |
| BROMOFLUOROBENZENE | 90 | 75-125 |

R.L. : Reporting limit
 * : Out of QC
 E : Exceeded calibration range
 B : Found in associated method blank
 J : Value between R.L. and MDL
 D : Value from dilution analysis
 D.O. : Diluted out

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH FW, INC. Date Collected: 05/25/04
Project : MFA, SITE 1, CTO 86 Date Received: 05/27/04
Batch No. : 04E241 Date Extracted: 06/02/04 11:57
Sample ID: 86-S1-008 Date Analyzed: 06/02/04 11:57
Lab Samp ID: E241-05 Dilution Factor: 1
Lab File ID: RFB034 Matrix: WATER
Ext Btch ID: V003F04 % Moisture: NA
Calib. Ref.: REB756 Instrument ID: T-003

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 1,1,1,2-TETRACHLOROETHANE | ND | .5 | .2 |
| 1,1,1-TRICHLOROETHANE | ND | .5 | .2 |
| 1,1,2,2-TETRACHLOROETHANE | ND | .5 | .2 |
| 1,1,2-TRICHLOROETHANE | ND | .5 | .2 |
| 1,1-DICHLOROETHANE | ND | .5 | .2 |
| 1,1-DICHLOROETHENE | ND | .5 | .2 |
| 1,1-DICHLOROPROPENE | ND | .5 | .2 |
| 1,2,3-TRICHLOROBENZENE | ND | .5 | .2 |
| 1,2,3-TRICHLOROPROPANE | ND | .5 | .2 |
| 1,2,4-TRICHLOROBENZENE | ND | .5 | .2 |
| 1,2,4-TRIMETHYLBENZENE | ND | .5 | .2 |
| 1,2-DIBROMO-3-CHLOROPROPANE | ND | .5 | .2 |
| 1,2-DICHLOROBENZENE | ND | .5 | .2 |
| 1,2-DICHLOROETHANE | ND | .5 | .2 |
| 1,2-DICHLOROPROPANE | ND | .5 | .2 |
| 1,3,5-TRIMETHYLBENZENE | ND | .5 | .2 |
| 1,3-DICHLOROBENZENE | ND | .5 | .2 |
| 1,3-DICHLOROPROPANE | ND | .5 | .2 |
| 1,4-DICHLOROBENZENE | ND | .5 | .2 |
| 2,2-DICHLOROPROPANE | ND | .5 | .2 |
| 2-BUTANONE | ND | .5 | .2 |
| 2-CHLOROTOLUENE | ND | .5 | .2 |
| 2-HEXANONE | ND | .5 | .2 |
| 4-CHLOROTOLUENE | ND | .5 | .2 |
| 4-METHYL-2-PENTANONE | ND | .5 | .2 |
| ACETONE | ND | .5 | .2 |
| BENZENE | ND | .5 | .2 |
| BROMOBENZENE | ND | .5 | .2 |
| BROMOCHLOROMETHANE | ND | .5 | .2 |
| BROMODICHLOROMETHANE | ND | .5 | .2 |
| BROMOFORM | ND | .5 | .2 |
| BROMOMETHANE | ND | .5 | .2 |
| CARBON DISULFIDE | ND | .5 | .2 |
| CARBON TETRACHLORIDE | ND | .5 | .2 |
| CHLOROBENZENE | ND | .5 | .2 |
| CHLOROETHANE | ND | .5 | .2 |
| CHLOROFORM | ND | .5 | .2 |
| CHLOROMETHANE | ND | .5 | .2 |
| CIS-1,2-DICHLOROETHENE | ND | .5 | .2 |
| CIS-1,3-DICHLOROPROPENE | ND | .5 | .2 |
| DIBROMOCHLOROMETHANE | ND | .5 | .2 |
| DIBROMOMETHANE | ND | .5 | .2 |
| DICHLORODIFLUOROMETHANE | ND | .5 | .2 |
| ETHYLBENZENE | ND | .5 | .2 |
| HEXACHLOROBUTADIENE | ND | .5 | .2 |
| ISOPROPYL BENZENE | ND | .5 | .2 |
| M/P-XYLENES | ND | .5 | .2 |
| METHYLENE CHLORIDE | ND | .5 | .2 |
| N-BUTYLBENZENE | ND | .5 | .2 |
| N-PROPYLBENZENE | ND | .5 | .2 |
| NAPHTHALENE | ND | .5 | .2 |
| O-XYLENE | ND | .5 | .2 |
| P-ISOPROPYLTOLUENE | ND | .5 | .2 |
| SEC-BUTYLBENZENE | ND | .5 | .2 |
| STYRENE | ND | .5 | .2 |
| TERT-BUTYLBENZENE | ND | .5 | .2 |
| TETRACHLOROETHYLENE | ND | .5 | .2 |
| TOLUENE | ND | .5 | .2 |
| TRANS-1,2-DICHLOROETHENE | ND | .5 | .2 |
| TRANS-1,3-DICHLOROPROPENE | ND | .5 | .2 |
| TRICHLOROETHENE | ND | .5 | .2 |
| TRICHLOROFLUOROMETHANE | ND | .5 | .2 |
| VINYL CHLORIDE | ND | .5 | .2 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|-----------------------|------------|----------|
| 1,2-DICHLOROETHANE-D4 | 132 | 62-139 |
| TOLUENE-D8 | 101 | 75-125 |
| BROMOFLUOROBENZENE | 94 | 75-125 |

R.L. : Reporting limit
* : Out of QC
E : Exceeded calibration range
B : Found in associated method blank
J : Value between R.L. and MDL
D : Value from dilution analysis
D.O. : Diluted out

SW 50308/82608
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH. FW, INC. Date Collected: 05/26/04
Project : MFA, SITE 1, CTO 86 Date Received: 05/27/04
Batch No. : 04E241 Date Extracted: 06/02/04 12:35
Sample ID: 86-S1-009 Date Analyzed: 06/02/04 12:35
Lab Samp ID: E241-06 Dilution Factor: 1
Lab File ID: RFB035 Matrix : WATER
Ext Btch ID: V003F04 % Moisture : NA
Calib. Ref.: REB756 Instrument ID : T-003

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 1,1,1,2-TETRACHLOROETHANE | ND | 1.5 | 1.5 |
| 1,1,1-TRICHLOROETHANE | ND | 1.5 | 1.5 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 1.5 | 1.5 |
| 1,1,2-TRICHLOROETHANE | ND | 1.5 | 1.5 |
| 1,1-DICHLOROETHANE | ND | 1.5 | 1.5 |
| 1,1-DICHLOROETHENE | ND | 1.5 | 1.5 |
| 1,1-DICHLOROPROPENE | ND | 1.5 | 1.5 |
| 1,2,3-TRICHLOROBENZENE | ND | 1.5 | 1.5 |
| 1,2,3-TRICHLOROPROPANE | ND | 1.5 | 1.5 |
| 1,2,4-TRICHLOROBENZENE | ND | 1.5 | 1.5 |
| 1,2,4-TRIMETHYLBENZENE | ND | 1.5 | 1.5 |
| 1,2-DIBROMO-3-CHLOROPROPANE | ND | 1.5 | 1.5 |
| 1,2-DICHLOROBENZENE | ND | 1.5 | 1.5 |
| 1,2-DICHLOROETHANE | ND | 1.5 | 1.5 |
| 1,2-DICHLOROPROPANE | ND | 1.5 | 1.5 |
| 1,3,5-TRIMETHYLBENZENE | ND | 1.5 | 1.5 |
| 1,3-DICHLOROBENZENE | ND | 1.5 | 1.5 |
| 1,3-DICHLOROPROPANE | ND | 1.5 | 1.5 |
| 1,4-DICHLOROBENZENE | ND | 1.5 | 1.5 |
| 2,2-DICHLOROPROPANE | ND | 1.5 | 1.5 |
| 2-BUTANONE | ND | 1.5 | 1.5 |
| 2-CHLOROTOLUENE | ND | 1.5 | 1.5 |
| 2-HEXANONE | ND | 1.5 | 1.5 |
| 4-CHLOROTOLUENE | ND | 1.5 | 1.5 |
| 4-METHYL-2-PENTANONE | ND | 1.5 | 1.5 |
| ACETONE | 2.91 | 1.5 | 1.5 |
| BENZENE | ND | 1.5 | 1.5 |
| BROMOBENZENE | ND | 1.5 | 1.5 |
| BROMOCHLOROMETHANE | ND | 1.5 | 1.5 |
| BROMODICHLOROMETHANE | ND | 1.5 | 1.5 |
| BROMOFORM | ND | 1.5 | 1.5 |
| BROMOMETHANE | ND | 1.5 | 1.5 |
| CARBON DISULFIDE | ND | 1.5 | 1.5 |
| CARBON TETRACHLORIDE | ND | 1.5 | 1.5 |
| CHLOROBENZENE | ND | 1.5 | 1.5 |
| CHLOROETHANE | ND | 1.5 | 1.5 |
| CHLOROFORM | ND | 1.5 | 1.5 |
| CHLOROMETHANE | ND | 1.5 | 1.5 |
| CIS-1,2-DICHLOROETHENE | ND | 1.5 | 1.5 |
| CIS-1,3-DICHLOROPROPENE | ND | 1.5 | 1.5 |
| DIBROMOCHLOROMETHANE | ND | 1.5 | 1.5 |
| DIBROMOMETHANE | ND | 1.5 | 1.5 |
| DICHLORODIFLUOROMETHANE | ND | 1.5 | 1.5 |
| ETHYLBENZENE | ND | 1.5 | 1.5 |
| HEXACHLOROBUTADIENE | ND | 1.5 | 1.5 |
| ISOPROPYL BENZENE | ND | 1.5 | 1.5 |
| M/P-XYLENES | ND | 1.5 | 1.5 |
| METHYLENE CHLORIDE | ND | 1.5 | 1.5 |
| N-BUTYLBENZENE | ND | 1.5 | 1.5 |
| N-PROPYLBENZENE | ND | 1.5 | 1.5 |
| NAPHTHALENE | ND | 1.5 | 1.5 |
| O-XYLENE | ND | 1.5 | 1.5 |
| P-ISOPROPYLTOLUENE | ND | 1.5 | 1.5 |
| SEC-BUTYLBENZENE | ND | 1.5 | 1.5 |
| STYRENE | ND | 1.5 | 1.5 |
| TERT-BUTYLBENZENE | ND | 1.5 | 1.5 |
| TETRACHLOROETHYLENE | ND | 1.5 | 1.5 |
| TOLUENE | ND | 1.5 | 1.5 |
| TRANS-1,2-DICHLOROETHENE | ND | 1.5 | 1.5 |
| TRANS-1,3-DICHLOROPROPENE | ND | 1.5 | 1.5 |
| TRICHLOROETHENE | ND | 1.5 | 1.5 |
| TRICHLOROFLUOROMETHANE | ND | 1.5 | 1.5 |
| VINYL CHLORIDE | ND | 1.5 | 1.5 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|-----------------------|------------|----------|
| 1,2-DICHLOROETHANE-D4 | 124 | 62-139 |
| TOLUENE-D8 | 99 | 75-125 |
| BROMOFLUOROBENZENE | 94 | 75-125 |

R.L. : Reporting limit
* : Out of QC
E : Exceeded calibration range
B : Found in associated method blank
J : Value between R.L. and MDL
D : Value from dilution analysis
D.O. : Diluted out

CASE NARRATIVE

CLIENT: TETRA TECH FW, INC.

PROJECT: MFA, SITE 1, CTO 86

SDG: 04E241

**SW 3520C/8270C
SEMI VOLATILE ORGANICS BY GC/MS**

Five (5) water samples were received on 05/27/04 for Semi Volatile Organic analysis by Method 3520C/8270C in accordance with USEPA SW846, 3rd edition.

1. Holding Time

Analytical holding time was met.

2. Tuning and Calibration

Tuning and calibration were carried out at 12 hours interval. All QC requirements were met.

3. Method Blank

Method blank was free of contamination at the reporting limit.

4. Surrogate Recovery

Recoveries were within QC limits.

5. Lab Control Sample/Lab Control Sample Duplicate

All recoveries were within QC limits.

6. Matrix Spike/Matrix Spike Duplicate

No MS/MSD sample was designated in this SDG.

7. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criteria were met.

SW 3520C/8270C
 SEMI VOLATILE ORGANICS BY GC/MS

| | | | |
|--------------|-----------------------|------------------|----------------|
| Client | : TETRA TECH FW, INC. | Date Collected: | 05/25/04 |
| Project | : MFA SITE 1, CTO 86 | Date Received: | 05/27/04 |
| Batch No. | : 04E241 | Date Extracted: | 06/01/04 17:00 |
| Sample ID: | 86-S1-004 | Date Analyzed: | 06/07/04 19:21 |
| Lab Samp ID: | E241-01 | Dilution Factor: | .94 |
| Lab File ID: | RFK082 | Matrix: | WATER |
| Ext Btch ID: | SVF001W | % Moisture: | NA |
| Calib. Ref.: | REK313 | Instrument ID: | T-052 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 2,4,6-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4,6-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DIMETHYLPHENOL | ND | 19 | 9.4 |
| 2,4-DINITROPHENOL | ND | 19 | 9.4 |
| 2,6-DINITROTOLUENE | ND | 19 | 5.6 |
| 2-CHLORONAPHTHALENE | ND | 9.4 | 4.7 |
| 2-CHLOROPHENOL | ND | 9.4 | 4.7 |
| 2-METHYLNAPHTHALENE | ND | 9.4 | 4.7 |
| 2-METHYLPHENOL | ND | 9.4 | 4.7 |
| 2-NITROANILINE | ND | 19 | 5.6 |
| 2-NITROPHENOL | ND | 9.4 | 4.7 |
| 3,3'-DICHLOROBENZIDINE | ND | 9.4 | 4.7 |
| 3-NITROANILINE | ND | 19 | 9.4 |
| 4,6-DINITRO-2-METHYLPHENOL | ND | 19 | 6.6 |
| 4-BROMOPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-CHLORO-3-METHYLPHENOL | ND | 9.4 | 4.7 |
| 4-CHLOROANILINE | ND | 9.4 | 4.7 |
| 4-CHLOROPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-METHYLPHENOL (1) | ND | 9.4 | 4.7 |
| 4-NITROANILINE | ND | 19 | 4.7 |
| 4-NITROPHENOL | ND | 9.4 | 4.7 |
| ACENAPHTHENE | ND | 9.4 | 4.7 |
| ACENAPHTHYLENE | ND | 9.4 | 4.7 |
| ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)PYRENE | ND | 9.4 | 4.7 |
| BENZO(B)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(K)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(G,H,I)PERYLENE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHOXY)METHANE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-CHLOROISOPROPYL)ETHER | ND | 19 | 9.4 |
| BIS(2-ETHYLHEXYL)PHTHALATE | ND | 9.4 | 4.7 |
| BUTYLBENZYLPHALATE | ND | 9.4 | 4.7 |
| CHRYSENE | ND | 9.4 | 4.7 |
| DI-N-BUTYLPHTHALATE | ND | 9.4 | 4.7 |
| DI-N-OCTYLPHTHALATE | ND | 9.4 | 4.7 |
| DIBENZO(A,H)ANTHRACENE | ND | 9.4 | 4.7 |
| DIBENZOFURAN | ND | 19 | 5.6 |
| DIETHYLPHTHALATE | ND | 19 | 4.7 |
| DIMETHYLPHTHALATE | ND | 9.4 | 4.7 |
| FLUORANTHENE | ND | 9.4 | 4.7 |
| FLUORENE | ND | 19 | 5.6 |
| HEXACHLOROBENZENE | ND | 9.4 | 4.7 |
| HEXACHLOROCYCLOPENTADIENE | ND | 9.4 | 4.7 |
| HEXACHLOROETHANE | ND | 9.4 | 4.7 |
| INDENO(1,2,3-CD)PYRENE | ND | 9.4 | 4.7 |
| ISOPHORONE | ND | 9.4 | 4.7 |
| N-NITROSO-DI-N-PROPYLAMINE | ND | 9.4 | 4.7 |
| N-NITROSODIPHENYLAMINE (2) | ND | 9.4 | 4.7 |
| NITROBENZENE | ND | 19 | 9.4 |
| PENTACHLOROPHENOL | ND | 19 | 5.6 |
| PHENANTHRENE | ND | 9.4 | 4.7 |
| PHENOL | ND | 9.4 | 4.7 |
| PYRENE | ND | 9.4 | 4.7 |
| 1,1'-BIPHENYL | ND | 9.4 | 4.7 |
| ACETOPHENONE | ND | 19 | 2.3 |
| ATRAZINE | ND | 9.4 | 4.7 |
| BENZALDEHYDE | ND | 9.4 | 4.7 |
| CAPROLACTAM | ND | 9.4 | 4.7 |
| CARBAZOLE | ND | 9.4 | 4.7 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| 2,4,6-TRIBROMOPHENOL | 73 | 25-134 |
| 2-FLUOROBIPHENYL | 51 | 43-125 |
| 2-FLUOROPHENOL | 45 | 25-125 |
| NITROBENZENE-D5 | 53 | 42-125 |
| PHENOL-D5 | 51 | 25-125 |
| TERPHENYL-D14 | 66 | 42-126 |

RL: Reporting Limit
 (1): Cannot be separated from 3-Methylphenol
 (2): Cannot be separated from Diphenylamine

SW 3520C/8270C
 SEMI VOLATILE ORGANICS BY GC/MS

| | |
|------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 05/25/04 |
| Project : MFA SITE 1, CTO 86 | Date Received: 05/27/04 |
| Batch No. : 042241 | Date Extracted: 06/01/04 17:00 |
| Sample ID: 86-S1-006 | Date Analyzed: 06/07/04 19:51 |
| Lab Samp ID: E241-03 | Dilution Factor: .94 |
| Lab File ID: RFK083 | Matrix : WATER |
| Ext Btch ID: SVF001W | % Moisture : NA |
| Calib. Ref.: REK313 | Instrument ID : T-052 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 2,4,5-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4,6-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DIMETHYLPHENOL | ND | 9.4 | 4.7 |
| 2,4-DINITROPHENOL | ND | 19 | 9.4 |
| 2,4-DINITROTOLUENE | ND | 19 | 9.4 |
| 2,6-DINITROTOLUENE | ND | 19 | 5.6 |
| 2-CHLORONAPHTHALENE | ND | 9.4 | 4.7 |
| 2-CHLOROPHENOL | ND | 9.4 | 4.7 |
| 2-METHYLNAPHTHALENE | ND | 9.4 | 4.7 |
| 2-METHYLPHENOL | ND | 9.4 | 4.7 |
| 2-NITROANILINE | ND | 19 | 5.6 |
| 2-NITROPHENOL | ND | 9.4 | 4.7 |
| 3,3'-DICHLOROBENZIDINE | ND | 9.4 | 4.7 |
| 3-NITROANILINE | ND | 9.4 | 4.7 |
| 4,6-DINITRO-2-METHYLPHENOL | ND | 19 | 9.4 |
| 4-BROMOPHENYL-PHENYL ETHER | ND | 19 | 6.6 |
| 4-CHLORO-3-METHYLPHENOL | ND | 9.4 | 4.7 |
| 4-CHLOROANILINE | ND | 9.4 | 4.7 |
| 4-CHLOROPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-METHYLPHENOL (1) | ND | 9.4 | 4.7 |
| 4-NITROANILINE | ND | 19 | 4.7 |
| 4-NITROPHENOL | ND | 9.4 | 4.7 |
| ACENAPHTHENE | ND | 9.4 | 4.7 |
| ACENAPHTHYLENE | ND | 9.4 | 4.7 |
| ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)PYRENE | ND | 9.4 | 4.7 |
| BENZO(B)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(K)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(G,H,I)PERYLENE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHOXY)METHANE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-CHLOROISOPROPYL)ETHER | ND | 19 | 9.4 |
| BIS(2-ETHYLHEXYL)PHTHALATE | ND | 9.4 | 4.7 |
| BUTYLBENZYLPHTHALATE | ND | 9.4 | 4.7 |
| CHRYSENE | ND | 9.4 | 4.7 |
| DI-N-BUTYLPHTHALATE | ND | 9.4 | 4.7 |
| DI-N-OCTYLPHTHALATE | ND | 9.4 | 4.7 |
| DIBENZO(A,H)ANTHRACENE | ND | 9.4 | 4.7 |
| DIBENZOFURAN | ND | 9.4 | 4.7 |
| DIETHYLPHTHALATE | ND | 19 | 5.6 |
| DIMETHYLPHTHALATE | ND | 19 | 4.7 |
| FLUORANTHENE | ND | 9.4 | 4.7 |
| FLUORENE | ND | 9.4 | 4.7 |
| HEXACHLOROBENZENE | ND | 19 | 5.6 |
| HEXACHLOROCYCLOPENTADIENE | ND | 9.4 | 4.7 |
| HEXACHLOROETHANE | ND | 9.4 | 4.7 |
| INDENO(1,2,3-CD)PYRENE | ND | 9.4 | 4.7 |
| ISOPHORONE | ND | 9.4 | 4.7 |
| N-NITROSO-DI-N-PROPYLAMINE | ND | 9.4 | 4.7 |
| N-NITROSODIPHENYLAMINE (2) | ND | 9.4 | 4.7 |
| NITROBENZENE | ND | 9.4 | 4.7 |
| PENTACHLOROPHENOL | ND | 19 | 5.6 |
| PHENANTHRENE | ND | 9.4 | 4.7 |
| PHENOL | ND | 9.4 | 4.7 |
| PYRENE | ND | 9.4 | 4.7 |
| 1,1'-BIPHENYL | ND | 9.4 | 4.7 |
| ACETOPHENONE | ND | 9.4 | 2.3 |
| ATRAZINE | ND | 19 | 9.4 |
| BENZALDEHYDE | ND | 9.4 | 4.7 |
| CAPROLACTAM | ND | 9.4 | 4.7 |
| CARBAZOLE | ND | 9.4 | 4.7 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| 2,4,6-TRIBROMOPHENOL | 64 | 25-134 |
| 2-FLUOROBIPHENYL | 47 | 43-125 |
| 2-FLUOROPHENOL | 47 | 43-125 |
| NITROBENZENE-D5 | 52 | 25-125 |
| PHENOL-D5 | 52 | 25-125 |
| TERPHENYL-D14 | 64 | 42-126 |

RL: Reporting Limit
 (1): Cannot be separated from 3-Methylphenol
 (2): Cannot be separated from Diphenylamine

SW 3520C/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH FW, INC. Date Collected: 05/25/04
Project : MFA, SITE 1, CTO 86 Date Received: 05/27/04
Batch No. : 04E241 Date Extracted: 06/01/04 17:00
Sample ID: 86-S1-007 Date Analyzed: 06/07/04 20:21
Lab Samp ID: E241-04 Dilution Factor: .94
Lab File ID: RFK084 Matrix : WATER
Ext Btch ID: SVF001W % Moisture : NA
Calib. Ref.: REK313 Instrument ID : T-052

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 2,4,5-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4,6-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DIMETHYLPHENOL | ND | 9.4 | 4.7 |
| 2,4-DINITROPHENOL | ND | 19 | 9.4 |
| 2,4-DINITROTOLUENE | ND | 19 | 9.4 |
| 2,6-DINITROTOLUENE | ND | 19 | 5.6 |
| 2-CHLORONAPHTHALENE | ND | 9.4 | 4.7 |
| 2-CHLOROPHENOL | ND | 9.4 | 4.7 |
| 2-METHYLNAPHTHALENE | ND | 9.4 | 4.7 |
| 2-METHYLPHENOL | ND | 9.4 | 4.7 |
| 2-NITROANILINE | ND | 19 | 5.6 |
| 2-NITROPHENOL | ND | 9.4 | 4.7 |
| 3,3'-DICHLOROBENZIDINE | ND | 9.4 | 4.7 |
| 3-NITROANILINE | ND | 9.4 | 4.7 |
| 4,6-DINITRO-2-METHYLPHENOL | ND | 19 | 9.4 |
| 4-BROMOPHENYL-PHENYL ETHER | ND | 19 | 6.6 |
| 4-CHLORO-3-METHYLPHENOL | ND | 9.4 | 4.7 |
| 4-CHLOROANILINE | ND | 9.4 | 4.7 |
| 4-CHLOROPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-METHYLPHENOL (1) | ND | 9.4 | 4.7 |
| 4-NITROANILINE | ND | 9.4 | 4.7 |
| 4-NITROPHENOL | ND | 19 | 4.7 |
| ACENAPHTHENE | ND | 9.4 | 4.7 |
| ACENAPHTHYLENE | ND | 9.4 | 4.7 |
| ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)PYRENE | ND | 9.4 | 4.7 |
| BENZO(B)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(K)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(G,H,I)PERYLENE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHOXY)METHANE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-CHLOROISOPROPYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-ETHYLHEXYL)PHTHALATE | ND | 19 | 9.4 |
| BUTYLBENZYLPHTHALATE | ND | 9.4 | 4.7 |
| CHRYSENE | ND | 9.4 | 4.7 |
| DI-N-BUTYLPHTHALATE | ND | 9.4 | 4.7 |
| DI-N-OCTYLPHTHALATE | ND | 9.4 | 4.7 |
| DIBENZO(A,H)ANTHRACENE | ND | 9.4 | 4.7 |
| DIBENZOFURAN | ND | 9.4 | 4.7 |
| DIETHYLPHTHALATE | ND | 19 | 5.6 |
| DIMETHYLPHTHALATE | ND | 9.4 | 4.7 |
| FLUORANTHENE | ND | 9.4 | 4.7 |
| FLUORENE | ND | 19 | 5.6 |
| HEXACHLOROBENZENE | ND | 9.4 | 4.7 |
| HEXACHLOROCYCLOPENTADIENE | ND | 9.4 | 4.7 |
| HEXACHLOROETHANE | ND | 9.4 | 4.7 |
| INDENO(1,2,3-CD)PYRENE | ND | 9.4 | 4.7 |
| ISOPHORONE | ND | 9.4 | 4.7 |
| N-NITROSO-DI-N-PROPYLAMINE | ND | 9.4 | 4.7 |
| N-NITROSODIPHENYLAMINE (2) | ND | 9.4 | 4.7 |
| NITROBENZENE | ND | 9.4 | 4.7 |
| PENTACHLOROPHENOL | ND | 19 | 9.4 |
| PHENANTHRENE | ND | 19 | 5.6 |
| PHENOL | ND | 9.4 | 4.7 |
| PYRENE | ND | 9.4 | 4.7 |
| 1,1'-BIPHENYL | ND | 9.4 | 4.7 |
| ACETOPHENONE | ND | 19 | 9.4 |
| ATRAZINE | ND | 9.4 | 4.7 |
| BENZALDEHYDE | ND | 9.4 | 4.7 |
| CAPROLACTAM | ND | 9.4 | 4.7 |
| CARBAZOLE | ND | 9.4 | 4.7 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| 2,4,6-TRIBROMOPHENOL | 73 | 25-134 |
| 2-FLUOROBIPHENYL | 52 | 43-125 |
| 2-FLUOROPHENOL | 47 | 25-125 |
| NITROBENZENE-D5 | 52 | 32-125 |
| PHENOL-D5 | 53 | 25-125 |
| TERPHENYL-D14 | 69 | 42-125 |

RL: Reporting Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

SW 3520C/8270C
 SEMI VOLATILE ORGANICS BY GC/MS

| | |
|------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 05/25/04 |
| Project : MFA SITE 1, CTO 86 | Date Received: 05/27/04 |
| Batch No. : 04E241 | Date Extracted: 06/01/04 17:00 |
| Sample ID: 86-S1-008 | Date Analyzed: 06/07/04 20:51 |
| Lab Samp ID: E241-05 | Dilution Factor: .94 |
| Lab File ID: RFK085 | Matrix : WATER |
| Ext Btch ID: SVFDD1W | % Moisture : NA |
| Calib. Ref.: REK313 | Instrument ID : T-052 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 2,4,5-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4,6-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DIMETHYLPHENOL | ND | 9.4 | 4.7 |
| 2,4-DINITROPHENOL | ND | 19 | 9.4 |
| 2,4-DINITROTOLUENE | ND | 19 | 9.4 |
| 2,6-DINITROTOLUENE | ND | 19 | 5.6 |
| 2-CHLORONAPHTHALENE | ND | 9.4 | 4.7 |
| 2-CHLOROPHENOL | ND | 9.4 | 4.7 |
| 2-METHYLNAPHTHALENE | ND | 9.4 | 4.7 |
| 2-METHYLPHENOL | ND | 9.4 | 4.7 |
| 2-NITROANILINE | ND | 19 | 5.6 |
| 2-NITROPHENOL | ND | 9.4 | 4.7 |
| 3,3'-DICHLOROBENZIDINE | ND | 9.4 | 4.7 |
| 3-NITROANILINE | ND | 19 | 9.4 |
| 4,6-DINITRO-2-METHYLPHENOL | ND | 19 | 6.6 |
| 4-BROMOPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-CHLORO-3-METHYLPHENOL | ND | 9.4 | 4.7 |
| 4-CHLOROANILINE | ND | 9.4 | 4.7 |
| 4-CHLOROPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-METHYLPHENOL (1) | ND | 9.4 | 4.7 |
| 4-NITROANILINE | ND | 9.4 | 4.7 |
| 4-NITROPHENOL | ND | 19 | 4.7 |
| ACENAPHTHENE | ND | 9.4 | 4.7 |
| ACENAPHTHYLENE | ND | 9.4 | 4.7 |
| ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)PYRENE | ND | 9.4 | 4.7 |
| BENZO(B)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(K)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(G,H,I)PERYLENE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHOXY)METHANE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-CHLOROISOPROPYL)ETHER | ND | 19 | 9.4 |
| BIS(2-ETHYLHEXYL)PHTHALATE | ND | 9.4 | 4.7 |
| BUTYLBENZYLPHthalate | ND | 9.4 | 4.7 |
| CHRYSENE | ND | 9.4 | 4.7 |
| D1-N-BUTYLPHthalate | ND | 9.4 | 4.7 |
| D1-N-OCTYLPHthalate | ND | 9.4 | 4.7 |
| DIBENZO(A,H)ANTHRACENE | ND | 9.4 | 4.7 |
| DIBENZOFURAN | ND | 9.4 | 4.7 |
| DIETHYLPHthalate | ND | 19 | 5.6 |
| DIMETHYLPHthalate | ND | 19 | 4.7 |
| FLUORANTHENE | ND | 9.4 | 4.7 |
| FLUORENE | ND | 9.4 | 4.7 |
| HEXACHLOROBENZENE | ND | 19 | 5.6 |
| HEXACHLOROCYCLOPENTADIENE | ND | 9.4 | 4.7 |
| HEXACHLOROETHANE | ND | 9.4 | 4.7 |
| INDENO(1,2,3-CD)PYRENE | ND | 9.4 | 4.7 |
| ISOPHORONE | ND | 9.4 | 4.7 |
| N-NITROSO-D1-N-PROPYLAMINE | ND | 9.4 | 4.7 |
| N-NITROSODIPHENYLAMINE (2) | ND | 9.4 | 4.7 |
| NITROBENZENE | ND | 9.4 | 4.7 |
| PENTACHLOROPHENOL | ND | 19 | 9.4 |
| PHENANTHRENE | ND | 19 | 5.6 |
| PHENOL | ND | 9.4 | 4.7 |
| PYRENE | ND | 9.4 | 4.7 |
| 1,1'-BIPHENYL | ND | 9.4 | 4.7 |
| ACETOPHENONE | ND | 9.4 | 2.3 |
| ATRAZINE | ND | 19 | 9.4 |
| BENZALDEHYDE | ND | 9.4 | 4.7 |
| CAPROLACTAM | ND | 9.4 | 4.7 |
| CARBAZOLE | ND | 9.4 | 4.7 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| 2,4,6-TRIBROMOPHENOL | 76 | 25-134 |
| 2-FLUOROBIPHENYL | 60 | 43-125 |
| 2-FLUOROPHENOL | 43 | 25-125 |
| NITROBENZENE-D5 | 50 | 25-125 |
| PHENOL-D5 | 50 | 25-125 |
| TERPHEYL-D14 | 71 | 42-126 |

RL: Reporting Limit
 (1): Cannot be separated from 3-Methylphenol
 (2): Cannot be separated from Diphenylamine

SW 3520C/8270C
SEMI VOLATILE ORGANICS BY GC/MS

| | |
|------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 05/26/04 |
| Project : MFA SITE 1, CTO 86 | Date Received: 05/27/04 |
| Batch No. : 04E241 | Date Extracted: 06/01/04 17:00 |
| Sample ID: 86-S1-009 | Date Analyzed: 06/07/04 21:21 |
| Lab Samp ID: E241-06 | Dilution Factor: .94 |
| Lab File ID: RFK086 | Matrix : WATER |
| Ext Btch ID: SVF001W | % Moisture : NA |
| Calib. Ref.: REK313 | Instrument ID : T-052 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 2,4,5-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4,6-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DIMETHYLPHENOL | ND | 9.4 | 4.7 |
| 2,4-DINITROPHENOL | ND | 19 | 9.4 |
| 2,4-DINITROTOLUENE | ND | 19 | 9.4 |
| 2,6-DINITROTOLUENE | ND | 19 | 5.6 |
| 2-CHLORONAPHTHALENE | ND | 9.4 | 4.7 |
| 2-CHLOROPHENOL | ND | 9.4 | 4.7 |
| 2-METHYLNAPHTHALENE | ND | 9.4 | 4.7 |
| 2-METHYLPHENOL | ND | 9.4 | 4.7 |
| 2-NITROANILINE | ND | 19 | 5.6 |
| 2-NITROPHENOL | ND | 9.4 | 4.7 |
| 3,3'-DICHLOROENZIDINE | ND | 9.4 | 4.7 |
| 3-NITROANILINE | ND | 9.4 | 4.7 |
| 4,6-DINITRO-2-METHYLPHENOL | ND | 19 | 9.4 |
| 4-BROMOPHENYL-PHENYL ETHER | ND | 9.4 | 6.6 |
| 4-CHLORO-3-METHYLPHENOL | ND | 9.4 | 4.7 |
| 4-CHLOROPHENOL | ND | 9.4 | 4.7 |
| 4-CHLOROPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-METHYLPHENOL (1) | ND | 9.4 | 4.7 |
| 4-NITROANILINE | ND | 9.4 | 4.7 |
| 4-NITROPHENOL | ND | 19 | 4.7 |
| ACENAPHTHENE | ND | 9.4 | 4.7 |
| ACENAPHTHYLENE | ND | 9.4 | 4.7 |
| ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)PYRENE | ND | 9.4 | 4.7 |
| BENZO(B)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(K)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(G,H,I)PERYLENE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHOXY)METHANE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-CHLOROISOPROPYL)ETHER | ND | 19 | 9.4 |
| BIS(2-ETHYLHEXYL)PHTHALATE | ND | 9.4 | 4.7 |
| BUTYLBENZYLPHthalate | ND | 9.4 | 4.7 |
| CHRYSENE | ND | 9.4 | 4.7 |
| D1-N-BUTYLPHthalate | ND | 9.4 | 4.7 |
| D1-N-OCTYLPHthalate | ND | 9.4 | 4.7 |
| DIBENZO(A,H)ANTHRACENE | ND | 9.4 | 4.7 |
| DIBENZOFURAN | ND | 9.4 | 4.7 |
| DIETHYLPHthalate | ND | 19 | 5.6 |
| DIMETHYLPHthalate | ND | 19 | 4.7 |
| FLUORANTHENE | ND | 9.4 | 4.7 |
| FLUORENE | ND | 19 | 5.6 |
| HEXACHLOROBENZENE | ND | 9.4 | 4.7 |
| HEXACHLOROCYCLOPENTADIENE | ND | 9.4 | 4.7 |
| HEXACHLOROETHANE | ND | 9.4 | 4.7 |
| INDENO(1,2,3-CD)PYRENE | ND | 9.4 | 4.7 |
| ISOPHORONE | ND | 9.4 | 4.7 |
| N-NITROSO-D1-N-PROPYLAMINE | ND | 9.4 | 4.7 |
| N-NITROSODIPHENYLAMINE (2) | ND | 9.4 | 4.7 |
| NITROBENZENE | ND | 9.4 | 4.7 |
| PENTACHLOROPHENOL | ND | 19 | 9.4 |
| PHENANTHRENE | ND | 19 | 5.6 |
| PHENOL | ND | 9.4 | 4.7 |
| PYRENE | ND | 9.4 | 4.7 |
| 1,1'-BIPHENYL | ND | 9.4 | 4.7 |
| ACETOPHENONE | ND | 9.4 | 2.3 |
| ATRAZINE | ND | 19 | 9.4 |
| BENZALDEHYDE | ND | 9.4 | 4.7 |
| CAPROLACTAM | ND | 9.4 | 4.7 |
| CARBAZOLE | ND | 9.4 | 4.7 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| 2,4,6-TRIBROMOPHENOL | 78 | 25-134 |
| 2-FLUOROBIPHENYL | 61 | 43-125 |
| 2-FLUOROPHENOL | 52 | 25-125 |
| NITROBENZENE-D5 | 63 | 32-125 |
| PHENOL-D5 | 57 | 25-125 |
| TERPHENYL-D14 | 69 | 42-126 |

9L: Reporting Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

CASE NARRATIVE**CLIENT: TETRA TECH FW, INC.****PROJECT: MFA, SITE 1, CTO 86****SDG: 04E241****SW3520C/8081A
PESTICIDES**

Five (5) water samples were received on 05/27/04 for Pesticides analysis by Method 3520C/8081A in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW846, 3rd edition.

1. Holding Time

Analytical holding time was met.

2. Instrument Performance and Calibration

Initial calibration was at five-point for Pesticides, all RSDs were within 20%. All continue calibrations were analyzed at 12-hour interval and mean recoveries were within 85-115%.

Endrin and DDT breakdown were within QC limits.

3. Method Blank

Method blank was free of contamination at the reporting limit.

4. Surrogate Recovery

Recoveries were within QC limits.

5. Lab Control Sample/Lab Control Duplicate

All recoveries were within QC limits.

6. Matrix Spike/Matrix Spike Duplicate

No MS/MSD sample was designated in this SDG.

7. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criteria were met.

SW3520C/8081A
 PESTICIDES

| | |
|-------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 05/25/04 |
| Project : MFA, SITE 1, CTO 86 | Date Received: 05/27/04 |
| Batch No. : 04E241 | Date Extracted: 06/01/04 16:30 |
| Sample ID: 86-S1-004 | Date Analyzed: 06/03/04 04:18 |
| Lab Samp ID: E241-01 | Dilution Factor: .94 |
| Lab File ID: SF02038A | Matrix : WATER |
| Ext Btch ID: CPF001W | % Moisture : NA |
| Calib. Ref.: SF02030A | Instrument ID : GCT008 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|----------------------|-------------------|--------------|---------------|
| ALPHA-BHC | (ND)ND | .047 | .0094 .0094 |
| GAMMA-BHC (LINDANE) | (ND)ND | .047 | .0094 .0094 |
| BETA-BHC | (ND) .053 | .047 | .0094 .0094 |
| HEPTACHLOR | (ND)ND | .047 | .0094 .0094 |
| DELTA-BHC | (ND)ND | .047 | .0094 .0094 |
| ALDRIN | (ND)ND | .047 | .0094 .0094 |
| HEPTACHLOR EPOXIDE | (ND)ND | .047 | .0094 .0094 |
| GAMMA-CHLORDANE | (ND)ND | .047 | .0094 .0094 |
| ALPHA-CHLORDANE | (ND)ND | .047 | .0094 .0094 |
| ENDOSULFAN I | (ND)ND | .047 | .028 .028 |
| 4,4'-DDE | (ND)ND | .094 | .028 .028 |
| DIELDRIN | (ND)ND | .19 | .094 .094 |
| ENDRIN | (ND)ND | .094 | .019 .019 |
| 4,4'-DDD | (ND)ND | .094 | .028 .028 |
| ENDOSULFAN II | (ND)ND | .094 | .019 .019 |
| 4,4'-DDT | (ND)ND | .094 | .019 .019 |
| ENDRIN ALDEHYDE | (ND)ND | .094 | .019 .019 |
| ENDOSULFAN SULFATE | (ND)ND | .094 | .019 .019 |
| ENDRIN KETONE | (ND)ND | .094 | .019 .019 |
| METHOXYCHLOR | (ND)ND | .47 | .094 .094 |
| TOXAPHENE | (ND)ND | 2.8 | 1.2 1.2 |
| | | | |
| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT | |
| ----- | | | |
| TETRACHLORO-M-XYLENE | 83 (88) | 30-130 | |
| DECACHLOROBIPHENYL | (74) 68 | 30-130 | |

RL : Reporting limit
 Left of | is related to first column ; Right of | related to second column
 () included the reported column

SW3520C/8081A
 PESTICIDES

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=====
Client      : TETRA TECH FW, INC.      Date Collected: 05/25/04
Project     : MFA, SITE 1, CTO 86      Date Received: 05/27/04
Batch No.   : 04E241                  Date Extracted: 06/01/04 16:30
Sample ID   : 86-S1-006               Date Analyzed: 06/03/04 04:43
Lab Samp ID : E241-03                 Dilution Factor: .94
Lab File ID : SF02039A                Matrix       : WATER
Ext Btch ID : CPF001W                 % Moisture    : NA
Calib. Ref. : SF02030A                Instrument ID : GCT008
=====
  
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| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---------------------|-------------------|--------------|---------------|
| ALPHA-BHC | (ND) ND | .047 | .0094 |
| GAMMA-BHC (LINDANE) | (ND) ND | .047 | .0094 |
| BETA-BHC | (ND) .057 | .047 | .0094 |
| HEPTACHLOR | (ND) ND | .047 | .0094 |
| DELTA-BHC | (ND) ND | .047 | .0094 |
| ALDRIN | (ND) ND | .047 | .0094 |
| HEPTACHLOR EPOXIDE | (ND) ND | .047 | .0094 |
| GAMMA-CHLORDANE | .013J (ND) | .047 | .0094 |
| ALPHA-CHLORDANE | (ND) ND | .047 | .0094 |
| ENDOSULFAN I | (ND) ND | .047 | .028 |
| 4,4'-DDE | (ND) ND | .094 | .028 |
| DIELDRIN | (ND) ND | .19 | .094 |
| ENDRIN | (ND) ND | .094 | .019 |
| 4,4'-DDD | (ND) ND | .094 | .028 |
| ENDOSULFAN II | (ND) ND | .094 | .019 |
| 4,4'-DDT | (ND) ND | .094 | .019 |
| ENDRIN ALDEHYDE | (ND) ND | .094 | .019 |
| ENDOSULFAN SULFATE | (ND) ND | .094 | .019 |
| ENDRIN KETONE | (ND) ND | .094 | .019 |
| METHOXYCHLOR | (ND) ND | .47 | .094 |
| TOXAPHENE | (ND) ND | 2.8 | 1.2 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| TETRACHLORO-M-XYLENE | (96) 95 | 30-130 |
| DECACHLOROBIPHENYL | (74) 67 | 30-130 |

RL : Reporting limit
 Left of | is related to first column ; Right of | related to second column
 () included the reported column

SW3520C/8081A
 PESTICIDES

```

=====
Client      : TETRA TECH FW, INC.      Date Collected: 05/25/04
Project     : MFA, SITE 1, CTO 86      Date Received: 05/27/04
Batch No.   : 04E241                   Date Extracted: 06/01/04 16:30
Sample ID   : 86-S1-007                Date Analyzed: 06/03/04 05:09
Lab Samp ID : E241-04                  Dilution Factor: .94
Lab File ID : SF02040A                 Matrix          : WATER
Ext Btch ID : CPF001W                  % Moisture       : NA
Calib. Ref. : SF02030A                 Instrument ID    : GCT008
=====
  
```

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---------------------|-------------------|--------------|---------------|
| ALPHA-BHC | (ND) ND | .047 | .0094 .0094 |
| GAMMA-BHC (LINDANE) | (ND) ND | .047 | .0094 .0094 |
| BETA-BHC | (ND) .06 | .047 | .0094 .0094 |
| HEPTACHLOR | (ND) ND | .047 | .0094 .0094 |
| DELTA-BHC | (ND) ND | .047 | .0094 .0094 |
| ALDRIN | (ND) ND | .047 | .0094 .0094 |
| HEPTACHLOR EPOXIDE | (ND) ND | .047 | .0094 .0094 |
| GAMMA-CHLORDANE | (ND) ND | .047 | .0094 .0094 |
| ALPHA-CHLORDANE | (ND) ND | .047 | .0094 .0094 |
| ENDOSULFAN I | (ND) ND | .047 | .028 .028 |
| 4,4'-DDE | (ND) ND | .094 | .028 .028 |
| DIELDRIN | (ND) ND | .19 | .094 .094 |
| ENDRIN | (ND) ND | .094 | .019 .019 |
| 4,4'-DDD | (ND) ND | .094 | .028 .028 |
| ENDOSULFAN II | (ND) ND | .094 | .019 .019 |
| 4,4'-DDT | (ND) ND | .094 | .019 .019 |
| ENDRIN ALDEHYDE | (ND) ND | .094 | .019 .019 |
| ENDOSULFAN SULFATE | (ND) ND | .094 | .019 .019 |
| ENDRIN KETONE | (ND) ND | .094 | .019 .019 |
| METHOXYCHLOR | (ND) ND | .47 | .094 .094 |
| TOXAPHENE | (ND) ND | 2.8 | 1.2 1.2 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| TETRACHLORO-M-XYLENE | 88 (90) | 30-130 |
| DECACHLOROBIPHENYL | (75) 67 | 30-130 |

RL : Reporting limit
 Left of | is related to first column ; Right of | related to second column
 () included the reported column

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SW3520C/8081A
PESTICIDES

```
=====
Client      : TETRA TECH FW, INC.      Date Collected: 05/25/04
Project     : MFA, SITE 1, CTO 86      Date Received: 05/27/04
Batch No.   : 04E241                   Date Extracted: 06/01/04 16:30
Sample ID   : 86-S1-008                Date Analyzed: 06/03/04 05:34
Lab Samp ID : E241-05                  Dilution Factor: .94
Lab File ID : SFO2041A                 Matrix          : WATER
Ext Btch ID : CPF001W                  % Moisture       : NA
Calib. Ref. : SFO2030A                 Instrument ID    : GCT008
=====
```

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---------------------|-------------------|--------------|---------------|
| ALPHA-BHC | (ND) ND | .047 | .0094 .0094 |
| GAMMA-BHC (LINDANE) | (ND) ND | .047 | .0094 .0094 |
| BETA-BHC | (ND) .034J | .047 | .0094 .0094 |
| HEPTACHLOR | .014J (ND) | .047 | .0094 .0094 |
| DELTA-BHC | (ND) ND | .047 | .0094 .0094 |
| ALDRIN | (ND) ND | .047 | .0094 .0094 |
| HEPTACHLOR EPOXIDE | (ND) ND | .047 | .0094 .0094 |
| GAMMA-CHLORDANE | .012J (ND) | .047 | .0094 .0094 |
| ALPHA-CHLORDANE | (ND) ND | .047 | .0094 .0094 |
| ENDOSULFAN I | (ND) ND | .047 | .028 .028 |
| 4,4'-DDE | (ND) ND | .094 | .028 .028 |
| DIELDRIN | (ND) ND | .19 | .094 .094 |
| ENDRIN | (ND) ND | .094 | .019 .019 |
| 4,4'-DDD | (ND) ND | .094 | .028 .028 |
| ENDOSULFAN II | (ND) ND | .094 | .019 .019 |
| 4,4'-DDT | (ND) ND | .094 | .019 .019 |
| ENDRIN ALDEHYDE | (ND) ND | .094 | .019 .019 |
| ENDOSULFAN SULFATE | (ND) ND | .094 | .019 .019 |
| ENDRIN KETONE | (ND) ND | .094 | .019 .019 |
| METHOXYCHLOR | (ND) ND | .47 | .094 .094 |
| TOXAPHENE | (ND) ND | 2.8 | 1.2 1.2 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| TETRACHLORO-M-XYLENE | 52 (53) | 30-130 |
| DECACHLOROBIPHENYL | (74) 65 | 30-130 |

RL : Reporting limit
Left of | is related to first column ; Right of | related to second column
() included the reported column

SW3520C/8081A
 PESTICIDES

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=====
Client       : TETRA TECH FW, INC.      Date Collected: 05/26/04
Project      : MFA, SITE 1, CTO 86      Date Received: 05/27/04
Batch No.    : 04E241                   Date Extracted: 06/01/04 16:30
Sample ID    : 86-S1-009                 Date Analyzed: 06/03/04 05:59
Lab Samp ID  : E241-06                   Dilution Factor: .94
Lab File ID  : SF02042A                  Matrix          : WATER
Ext Btch ID  : CPF001W                    % Moisture       : NA
Calib. Ref.  : SF02030A                  Instrument ID    : GCT008
=====
  
```

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|----------------------|-------------------|--------------|---------------|
| ALPHA-BHC | .039J (ND) | .047 | .0094 .0094 |
| GAMMA-BHC (LINDANE) | (ND) .018J | .047 | .0094 .0094 |
| BETA-BHC | (ND) .095 | .047 | .0094 .0094 |
| HEPTACHLOR | .037J (ND) | .047 | .0094 .0094 |
| DELTA-BHC | (ND) .035J | .047 | .0094 .0094 |
| ALDRIN | .048 (ND) | .047 | .0094 .0094 |
| HEPTACHLOR EPOXIDE | (ND) .027J | .047 | .0094 .0094 |
| GAMMA-CHLORDANE | .051 (.053) | .047 | .0094 .0094 |
| ALPHA-CHLORDANE | (ND) ND | .047 | .0094 .0094 |
| ENDOSULFAN I | (ND) ND | .047 | .028 .028 |
| 4,4'-DDE | .032J (ND) | .094 | .028 .028 |
| DIELDRIN | (ND) ND | .19 | .094 .094 |
| ENDRIN | (ND) ND | .094 | .019 .019 |
| 4,4'-DDD | .034J (ND) | .094 | .028 .028 |
| ENDOSULFAN II | .023J (ND) | .094 | .019 .019 |
| 4,4'-DDT | (ND) ND | .094 | .019 .019 |
| ENDRIN ALDEHYDE | (ND) ND | .094 | .019 .019 |
| ENDOSULFAN SULFATE | (ND) ND | .094 | .019 .019 |
| ENDRIN KETONE | (ND) ND | .094 | .019 .019 |
| METHOXYCHLOR | (ND) ND | .47 | .094 .094 |
| TOXAPHENE | (ND) ND | 2.8 | 1.2 1.2 |
| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT | |
| TETRACHLORO-M-XYLENE | (98) 92 | 30-130 | |
| DECACHLOROBIPHENYL | 64 (117) | 30-130 | |

RL : Reporting limit

 Left of | is related to first column ; Right of | related to second column
 () included the reported column

CASE NARRATIVE**CLIENT:** TETRA TECH FW, INC.**PROJECT:** MFA, SITE 1, CTO 86**SDG:** 04E241**SW3520C/8082
PCBs**

Five (5) water samples were received on 05/27/04 for PCBs analysis by Method 3520C/8082 in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW846, 3rd edition.

1. Holding Time

Analytical holding time was met.

2. Instrument Performance and Calibration

Initial calibration was at five-point for PCB-1016 and PCB-1260, all RSDs were within 20%. All continue calibrations were analyzed at 12-hour interval and all recoveries were within 85-115%.

3. Method Blank

Method blank was free of contamination at the reporting limit.

4. Surrogate Recovery

Recoveries were within QC limits.

5. Lab Control Sample/Lab Control Duplicate

All recoveries were within QC limits.

6. Matrix Spike/Matrix Spike Duplicate

No MS/MSD sample was designated in this SDG.

7. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criteria were met.

SW3520C/8082
 PCBs

```

=====
Client      : TETRA TECH FW, INC.      Date Collected: 05/25/04
Project     : MFA, SITE 1, CTO 86      Date Received: 05/27/04
Batch No.   : 04E241                   Date Extracted: 06/01/04 16:30
Sample ID   : 86-S1-004                 Date Analyzed: 06/03/04 04:18
Lab Samp ID : E241-01                   Dilution Factor: .94
Lab File ID : SF02038A                  Matrix          : WATER
Ext Btch ID : CPF001W                   % Moisture       : NA
Calib. Ref. : SF02033A                  Instrument ID    : GCT008
=====
  
```

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|------------|-------------------|--------------|---------------|
| PCB-1016 | (ND) ND | .94 | .24 .24 |
| PCB-1221 | (ND) ND | .94 | .24 .24 |
| PCB-1232 | (ND) ND | .94 | .24 .24 |
| PCB-1242 | (ND) ND | .94 | .24 .24 |
| PCB-1248 | (ND) ND | .94 | .24 .24 |
| PCB-1254 | (ND) ND | .94 | .24 .24 |
| PCB-1260 | (ND) ND | .94 | .24 .24 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| TETRACHLORO-M-XYLENE | (75) 82 | 30-130 |
| DECACHLOROBIPHENYL | (79) 72 | 30-130 |

RL: Reporting Limit
 Left of | is related to first column ; Right of | related to second column
 () included the reported column
 * Out side of QC Limit

SW3520C/8082
 PCBs

```

=====
Client       : TETRA TECH FW, INC.      Date Collected: 05/25/04
Project      : MFA, SITE 1, CTO 86      Date Received: 05/27/04
Batch No.    : 04E241                   Date Extracted: 06/01/04 16:30
Sample ID    : 86-S1-006                Date Analyzed: 06/03/04 04:43
Lab Samp ID  : E241-03                  Dilution Factor: .94
Lab File ID  : SF02039A                 Matrix          : WATER
Ext Btch ID  : CPF001W                  % Moisture       : NA
Calib. Ref.  : SF02033A                 Instrument ID    : GCT008
=====
  
```

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|------------|-------------------|--------------|---------------|
| PCB-1016 | (ND) ND | .94 | .24 .24 |
| PCB-1221 | (ND) ND | .94 | .24 .24 |
| PCB-1232 | (ND) ND | .94 | .24 .24 |
| PCB-1242 | (ND) ND | .94 | .24 .24 |
| PCB-1248 | (ND) ND | .94 | .24 .24 |
| PCB-1254 | (ND) ND | .94 | .24 .24 |
| PCB-1260 | (ND) ND | .94 | .24 .24 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| TETRACHLORO-M-XYLENE | (88) 89 | 30-130 |
| DECACHLOROBIPHENYL | (78) 72 | 30-130 |

RL: Reporting Limit
 Left of | is related to first column ; Right of | related to second column
 () included the reported column
 * Out side of QC Limit

SW3520C/8082
PCBs

```
=====
Client       : TETRA TECH FW, INC.      Date Collected: 05/25/04
Project      : MFA, SITE 1, CTO 86      Date Received: 05/27/04
Batch No.    : 04E241                   Date Extracted: 06/01/04 16:30
Sample ID    : 86-S1-007                 Date Analyzed: 06/03/04 05:09
Lab Samp ID  : E241-04                   Dilution Factor: .94
Lab File ID  : SF02040A                  Matrix          : WATER
Ext Btch ID  : CPF001W                   % Moisture       : NA
Calib. Ref.  : SF02033A                  Instrument ID    : GCT008
=====
```

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|------------|-------------------|--------------|---------------|
| PCB-1016 | (ND) ND | .94 | .24 .24 |
| PCB-1221 | (ND) ND | .94 | .24 .24 |
| PCB-1232 | (ND) ND | .94 | .24 .24 |
| PCB-1242 | (ND) ND | .94 | .24 .24 |
| PCB-1248 | (ND) ND | .94 | .24 .24 |
| PCB-1254 | (ND) ND | .94 | .24 .24 |
| PCB-1260 | (ND) ND | .94 | .24 .24 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| TETRACHLORO-M-XYLENE | (82) 84 | 30-130 |
| DECACHLOROBIPHENYL | (79) 71 | 30-130 |

RL: Reporting Limit
 Left of | is related to first column ; Right of | related to second column
 () included the reported column
 * Out side of QC Limit

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SW3520C/8082
 PCBs

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=====
Client       : TETRA TECH FW, INC.      Date Collected: 05/25/04
Project      : MFA, SITE 1, CTO 86      Date Received: 05/27/04
Batch No.    : 04E241                   Date Extracted: 06/01/04 16:30
Sample ID    : 86-S1-008                Date Analyzed: 06/03/04 05:34
Lab Samp ID  : E241-05                   Dilution Factor: .94
Lab File ID  : SF02041A                  Matrix          : WATER
Ext Btch ID  : CPF001W                   % Moisture       : NA
Calib. Ref.  : SF02033A                  Instrument ID    : GCT008
=====
  
```

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|------------|-------------------|--------------|---------------|
| PCB-1016 | (ND) ND | .94 | .24 .24 |
| PCB-1221 | (ND) ND | .94 | .24 .24 |
| PCB-1232 | (ND) ND | .94 | .24 .24 |
| PCB-1242 | (ND) ND | .94 | .24 .24 |
| PCB-1248 | (ND) ND | .94 | .24 .24 |
| PCB-1254 | (ND) ND | .94 | .24 .24 |
| PCB-1260 | (ND) ND | .94 | .24 .24 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| TETRACHLORO-M-XYLENE | (47) 49 | 30-130 |
| DECACHLOROBIPHENYL | (79) 70 | 30-130 |

RL: Reporting Limit
 Left of | is related to first column ; Right of | related to second column
 () included the reported column
 * Out side of QC Limit

SW3520C/8082
PCBs

```

=====
Client       : TETRA TECH FW, INC.      Date Collected: 05/26/04
Project      : MFA, SITE 1, CTO 86      Date Received: 05/27/04
Batch No.    : 04E241                   Date Extracted: 06/01/04 16:30
Sample ID    : 86-S1-009                 Date Analyzed: 06/03/04 05:59
Lab Samp ID  : E241-06                   Dilution Factor: .94
Lab File ID  : SF02042A                  Matrix       : WATER
Ext Btch ID  : CPF001W                    % Moisture    : NA
Calib. Ref.  : SF02033A                  Instrument ID : GCT008
=====

```

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|------------|-------------------|--------------|---------------|
| PCB-1016 | (ND) ND | .94 | .24 .24 |
| PCB-1221 | (ND) ND | .94 | .24 .24 |
| PCB-1232 | (ND) ND | .94 | .24 .24 |
| PCB-1242 | (ND) ND | .94 | .24 .24 |
| PCB-1248 | (ND) ND | .94 | .24 .24 |
| PCB-1254 | (ND) ND | .94 | .24 .24 |
| PCB-1260 | (ND) ND | .94 | .24 .24 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| TETRACHLORO-M-XYLENE | (87) 87 | 30-130 |
| DECACHLOROBIPHENYL | (71) 125 | 30-130 |

RL: Reporting Limit
 Left of | is related to first column ; Right of | related to second column
 () included the reported column
 * Out side of QC Limit

COLUMBIA ANALYTICAL SERVICES, INC.

Client: EMAX Laboratories
Project: MFA Site 1, CTO 86
Sample Matrix: Water

Service Request No.: K2403969
Date Received: 5/29/04

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of Columbia Analytical Services, Inc. (CAS). This report contains analytical results for samples designated for Tier III validation deliverables including summary forms and all of the associated raw data for each of the analyses. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

Five water samples were received for analysis at Columbia Analytical Services on 5/29/04. No discrepancies were noted upon initial sample inspection. All samples were received in good condition and consistent with the accompanying chain of custody forms. The samples were stored in a refrigerator at 4°C upon receipt at the laboratory.

Due to the nature of the sample matrices and additional project information received from the client on 6/3-4/04, additional analyses were subsequently authorized via email on 6/11/04. Other analyses were authorized via email on 6/16/04. Copies of all emails are included in the chain of custody section as supporting documentation.

Dissolved Metals

Sample Notes and Discussion:

Due to the high salinity of the water samples, CAS was not able to analyze the samples as initially requested by EPA 200.8 without additional pretreatment. As discussed with the client, the samples were analyzed using a combination of analytical techniques to meet a variety of project DQO requirements.

In the first approach, the samples were analyzed by ICP per EPA method 6010 (for Al, Sb, Ba, Be, Cd, Cr, Pb, Ni, Ag, Tl, V, Zn) and by GFAA for Arsenic (EPA method 7060A), Copper (EPA method 7211) and Lead (EPA method 7211).

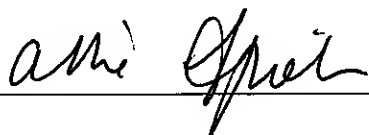
After further discussion with the client, a second approach was designed to achieve lower method reporting limits in the highly saline sample matrix. All samples were pretreated by reductive precipitation using EPA method 1640 and analyzed by ICP/MS EPA method 200.8 for As, Sb, Ba, Be, Cd, Cr, Co, Cu, Pb, Ni (quantified using isotope dilution), Ag, and Tl. In addition, Selenium was analyzed by hydride EPA method 7742.

A separate data package has been prepared for each analytical approach described above. Please note that samples were analyzed for Aluminum, Vanadium and Zinc only one time using ICP EPA method 6010B. However, results for these analytes have been included in both metals data packages.

Matrix Spike Recovery Exceptions:

The matrix spike recovery of Copper by EPA method 7211 for the Batch QC sample was outside the CAS control criteria because of matrix interference. The sample contained elevated levels of Total Dissolved Solids (TDS), which caused chemical and physical interference related to atomization and subsequent atomic absorption. The associated QA/QC results (i.e. LCS, CCV, etc.) indicate the analysis was in control. The low recovery suggests a similar low bias in the unspiked sample as well. No further corrective action was appropriate.

Approved by



Date



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The matrix spike recovery of Selenium by EPA method 7740 for the Batch QC sample is not applicable. The analysis of this sample required a dilution such that the added spike concentration was diluted below the Method Reporting Limit (MRL). No further corrective action was taken.

The matrix spike recovery of Arsenic by EPA method 200.8 for the Batch QC sample was outside control criteria. Recoveries in the Laboratory Control Samples (LCS) were acceptable, which indicates the analytical batch was in control. The matrix spike outlier suggests a potential low bias in this matrix. No further corrective action was appropriate.

No other anomalies associated with the analysis of these samples were observed.

Approved by

Ami Spitz

Date

7/6/07

00006

DISSOLVED METALS

-1-

INORGANIC ANALYSIS DATA SHEET

Client: EMAX Laboratories, Inc.

Service Request: K2403969

Project No.: 04E247

Date Collected: 05/25/04

Project Name: MFA, Site 1, CTO 86

Date Received: 05/29/04

Matrix: WATER

Units: µg/L

Basis: • NA

Sample Name: 86-S1-004

Lab Code: K2403969-001 DISS

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|-----------|-----------------|------|------|------|----------------|---------------|--------|---|---|
| Aluminum | 6010B | 50 | 50 | 1 | 6/22/04 | 6/29/04 | 50 | U | |
| Antimony | 6010B | 50 | 20 | 1 | 6/22/04 | 6/29/04 | 20 | U | |
| Arsenic | 7060A | 10.0 | 5.0 | 5 | 6/7/04 | 6/17/04 | 5.0 | U | |
| Barium | 6010B | 5.0 | 1.0 | 1 | 6/22/04 | 6/29/04 | 74.9 | | |
| Beryllium | 6010B | 5.0 | 0.2 | 1 | 6/22/04 | 6/29/04 | 0.2 | U | |
| Cadmium | 6010B | 5.0 | 2.0 | 1 | 6/22/04 | 6/29/04 | 2.0 | U | |
| Chromium | 6010B | 5.0 | 2.0 | 1 | 6/22/04 | 6/29/04 | 2.0 | U | |
| Cobalt | 6010B | 10.0 | 2.0 | 1 | 6/22/04 | 6/29/04 | 13.6 | | |
| Copper | 7211 | 2.0 | 0.6 | 2 | 6/22/04 | 6/22/04 | 0.7 | B | N |
| Lead | 6010B | 50 | 20 | 1 | 6/22/04 | 6/29/04 | 20 | U | |
| Nickel | 6010B | 20.0 | 3.0 | 1 | 6/22/04 | 6/29/04 | 11.8 | B | |
| Selenium | 7740 | 40.0 | 20.0 | 20 | 6/22/04 | 6/30/04 | 20.0 | U | |
| Silver | 6010B | 10.0 | 7.0 | 1 | 6/22/04 | 6/29/04 | 7.0 | U | |
| Thallium | 6010B | 100 | 30 | 1 | 6/22/04 | 6/29/04 | 30 | U | |
| Vanadium | 6010B | 10.0 | 6.0 | 1 | 6/22/04 | 6/29/04 | 6.0 | U | |
| Zinc | 6010B | 10.0 | 3.0 | 1 | 6/22/04 | 6/29/04 | 4.0 | B | |

% Solids: 0.0

Comments:

DISSOLVED METALS

-1-

INORGANIC ANALYSIS DATA SHEET

Client: EMAX Laboratories, Inc.

Service Request: K2403969

Project No.: 04E247

Date Collected: 05/25/04

Project Name: MFA, Site 1, CTO 86

Date Received: 05/29/04

Matrix: WATER

Units: µg/L

Basis: • NA

Sample Name: 86-S1-006

Lab Code: K2403969-002 DISS

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|-----------|-----------------|------|------|------|----------------|---------------|--------|---|---|
| Aluminum | 6010B | 50 | 50 | 1 | 6/22/04 | 6/29/04 | 50 | U | |
| Antimony | 6010B | 50 | 20 | 1 | 6/22/04 | 6/29/04 | 24.3 | B | |
| Arsenic | 7060A | 10.0 | 5.0 | 5 | 6/7/04 | 6/17/04 | 5.5 | B | |
| Barium | 6010B | 5.0 | 1.0 | 1 | 6/22/04 | 6/29/04 | 136 | | |
| Beryllium | 6010B | 5.0 | 0.2 | 1 | 6/22/04 | 6/29/04 | 0.2 | U | |
| Cadmium | 6010B | 5.0 | 2.0 | 1 | 6/22/04 | 6/29/04 | 2.0 | U | |
| Chromium | 6010B | 5.0 | 2.0 | 1 | 6/22/04 | 6/29/04 | 2.0 | U | |
| Cobalt | 6010B | 10.0 | 2.0 | 1 | 6/22/04 | 6/29/04 | 12.6 | | |
| Copper | 7211 | 2.0 | 0.6 | 2 | 6/22/04 | 6/22/04 | 0.6 | U | N |
| Lead | 6010B | 50 | 20 | 1 | 6/22/04 | 6/29/04 | 20 | U | |
| Nickel | 6010B | 20.0 | 3.0 | 1 | 6/22/04 | 6/29/04 | 5.5 | B | |
| Selenium | 7740 | 40.0 | 20.0 | 20 | 6/22/04 | 6/30/04 | 20.0 | U | |
| Silver | 6010B | 10.0 | 7.0 | 1 | 6/22/04 | 6/29/04 | 7.0 | U | |
| Thallium | 6010B | 100 | 30 | 1 | 6/22/04 | 6/29/04 | 30 | U | |
| Vanadium | 6010B | 10.0 | 6.0 | 1 | 6/22/04 | 6/29/04 | 9.0 | B | |
| Zinc | 6010B | 10.0 | 3.0 | 1 | 6/22/04 | 6/29/04 | 3.0 | U | |

% Solids: 0.0

Comments:

DISSOLVED METALS

-1-

INORGANIC ANALYSIS DATA SHEET

Client: EMAX Laboratories, Inc.

Service Request: K2403969

Project No.: 04E247

Date Collected: 05/25/04

Project Name: MFA, Site 1, CTO 86

Date Received: 05/29/04

Matrix: WATER

Units: µg/L

Basis: NA

Sample Name: 86-S1-007

Lab Code: K2403969-003 DISS

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|-----------|-----------------|------|------|------|----------------|---------------|--------|---|---|
| Aluminum | 6010B | 50 | 50 | 1 | 6/22/04 | 6/29/04 | 50 | U | |
| Antimony | 6010B | 50 | 20 | 1 | 6/22/04 | 6/29/04 | 20 | U | |
| Arsenic | 7060A | 10.0 | 5.0 | 5 | 6/7/04 | 6/17/04 | 6.0 | B | |
| Barium | 6010B | 5.0 | 1.0 | 1 | 6/22/04 | 6/29/04 | 135 | | |
| Beryllium | 6010B | 5.0 | 0.2 | 1 | 6/22/04 | 6/29/04 | 0.2 | U | |
| Cadmium | 6010B | 5.0 | 2.0 | 1 | 6/22/04 | 6/29/04 | 2.0 | U | |
| Chromium | 6010B | 5.0 | 2.0 | 1 | 6/22/04 | 6/29/04 | 2.0 | U | |
| Cobalt | 6010B | 10.0 | 2.0 | 1 | 6/22/04 | 6/29/04 | 12.9 | | |
| Copper | 7211 | 2.0 | 0.6 | 2 | 6/22/04 | 6/22/04 | 0.6 | U | N |
| Lead | 6010B | 50 | 20 | 1 | 6/22/04 | 6/29/04 | 20 | U | |
| Nickel | 6010B | 20.0 | 3.0 | 1 | 6/22/04 | 6/29/04 | 7.5 | B | |
| Selenium | 7740 | 40.0 | 20.0 | 20 | 6/22/04 | 6/30/04 | 20.0 | U | |
| Silver | 6010B | 10.0 | 7.0 | 1 | 6/22/04 | 6/29/04 | 7.0 | U | |
| Thallium | 6010B | 100 | 30 | 1 | 6/22/04 | 6/29/04 | 30 | U | |
| Vanadium | 6010B | 10.0 | 6.0 | 1 | 6/22/04 | 6/29/04 | 6.0 | U | |
| Zinc | 6010B | 10.0 | 3.0 | 1 | 6/22/04 | 6/29/04 | 3.0 | U | |

% Solids: 0.0

Comments:

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DISSOLVED METALS

-1-

INORGANIC ANALYSIS DATA SHEET

Client: EMAX Laboratories, Inc.

Service Request: K2403969

Project No.: 04E247

Date Collected: 05/25/04

Project Name: MFA, Site 1, CTO 86

Date Received: 05/29/04

Matrix: WATER

Units: µg/L

Basis: NA

Sample Name: 86-S1-008

Lab Code: K2403969-004 DISS

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|-----------|-----------------|------|------|------|----------------|---------------|--------|---|---|
| Aluminum | 6010B | 50 | 50 | 1 | 6/22/04 | 6/29/04 | 50 | U | |
| Antimony | 6010B | 50 | 20 | 1 | 6/22/04 | 6/29/04 | 21.0 | B | |
| Arsenic | 7060A | 10.0 | 5.0 | 5 | 6/7/04 | 6/17/04 | 5.0 | U | |
| Barium | 6010B | 5.0 | 1.0 | 1 | 6/22/04 | 6/29/04 | 66.2 | | |
| Beryllium | 6010B | 5.0 | 0.2 | 1 | 6/22/04 | 6/29/04 | 0.2 | U | |
| Cadmium | 6010B | 5.0 | 2.0 | 1 | 6/22/04 | 6/29/04 | 2.0 | U | |
| Chromium | 6010B | 5.0 | 2.0 | 1 | 6/22/04 | 6/29/04 | 2.0 | U | |
| Cobalt | 6010B | 10.0 | 2.0 | 1 | 6/22/04 | 6/29/04 | 9.5 | B | |
| Copper | 7211 | 2.0 | 0.6 | 2 | 6/22/04 | 6/22/04 | 0.6 | U | N |
| Lead | 6010B | 50 | 20 | 1 | 6/22/04 | 6/29/04 | 20 | U | |
| Nickel | 6010B | 20.0 | 3.0 | 1 | 6/22/04 | 6/29/04 | 44.7 | | |
| Selenium | 7740 | 40.0 | 20.0 | 20 | 6/22/04 | 6/30/04 | 20.0 | U | |
| Silver | 6010B | 10.0 | 7.0 | 1 | 6/22/04 | 6/29/04 | 7.0 | U | |
| Thallium | 6010B | 100 | 30 | 1 | 6/22/04 | 6/29/04 | 30 | U | |
| Vanadium | 6010B | 10.0 | 6.0 | 1 | 6/22/04 | 6/29/04 | 6.0 | U | |
| Zinc | 6010B | 10.0 | 3.0 | 1 | 6/22/04 | 6/29/04 | 59.9 | | |

% Solids: 0.0

Comments:

DISSOLVED METALS

-1-

INORGANIC ANALYSIS DATA SHEET

Client: EMAX Laboratories, Inc.

Service Request: K2403969

Project No.: 04E247

Date Collected: 05/25/04

Project Name: MFA, Site 1, CTO 86

Date Received: 05/29/04

Matrix: WATER

Units: µg/L

Basis: .NA

Sample Name: 86-S1-009

Lab Code: K2403969-005 DISS

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|-----------|-----------------|------|------|------|----------------|---------------|--------|---|---|
| Aluminum | 6010B | 50 | 50 | 1 | 6/22/04 | 6/29/04 | 50 | U | |
| Antimony | 6010B | 50 | 20 | 1 | 6/22/04 | 6/29/04 | 28.1 | B | |
| Arsenic | 7060A | 10.0 | 5.0 | 5 | 6/7/04 | 6/17/04 | 5.0 | U | |
| Barium | 6010B | 5.0 | 1.0 | 1 | 6/22/04 | 6/29/04 | 326 | | |
| Beryllium | 6010B | 5.0 | 0.2 | 1 | 6/22/04 | 6/29/04 | 0.2 | U | |
| Cadmium | 6010B | 5.0 | 2.0 | 1 | 6/22/04 | 6/29/04 | 2.0 | U | |
| Chromium | 6010B | 5.0 | 2.0 | 1 | 6/22/04 | 6/29/04 | 9.5 | | |
| Cobalt | 6010B | 10.0 | 2.0 | 1 | 6/22/04 | 6/29/04 | 4.5 | B | |
| Copper | 7211 | 2.0 | 0.6 | 2 | 6/22/04 | 6/22/04 | 0.6 | U | N |
| Lead | 6010B | 50 | 20 | 1 | 6/22/04 | 6/29/04 | 20 | U | |
| Nickel | 6010B | 20.0 | 3.0 | 1 | 6/22/04 | 6/29/04 | 101 | | |
| Selenium | 7740 | 40.0 | 20.0 | 20 | 6/22/04 | 6/30/04 | 20.0 | U | |
| Silver | 6010B | 10.0 | 7.0 | 1 | 6/22/04 | 6/29/04 | 7.0 | U | |
| Thallium | 6010B | 100 | 30 | 1 | 6/22/04 | 6/29/04 | 30 | U | |
| Vanadium | 6010B | 10.0 | 6.0 | 1 | 6/22/04 | 6/29/04 | 6.0 | U | |
| Zinc | 6010B | 10.0 | 3.0 | 1 | 6/22/04 | 6/29/04 | 46.5 | | |

% Solids: 0.0

Comments:

DISSOLVED METALS

-1-

INORGANIC ANALYSIS DATA SHEET

Client: EMAX Laboratories, Inc.

Service Request: K2403969

Project No.: 04E247

Date Collected: NA

Project Name: MFA, Site 1, CTO 86

Date Received: NA

Matrix: WATER

Units: µg/L

Basis: NA

Sample Name: Method Blank

Lab Code: K2403969-MB

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|-----------|-----------------|------|-----|------|----------------|---------------|--------|---|---|
| Aluminum | 6010B | 50 | 50 | 1 | 6/22/04 | 6/29/04 | 50 | U | |
| Antimony | 6010B | 50 | 20 | 1 | 6/22/04 | 6/29/04 | 20 | U | |
| Arsenic | 7060A | 2.0 | 1.0 | 1 | 6/7/04 | 6/17/04 | 1.0 | U | |
| Barium | 6010B | 5.0 | 1.0 | 1 | 6/22/04 | 6/29/04 | 1.0 | U | |
| Beryllium | 6010B | 5.0 | 0.2 | 1 | 6/22/04 | 6/29/04 | 0.2 | U | |
| Cadmium | 6010B | 5.0 | 2.0 | 1 | 6/22/04 | 6/29/04 | 2.0 | U | |
| Chromium | 6010B | 5.0 | 2.0 | 1 | 6/22/04 | 6/29/04 | 2.0 | U | |
| Cobalt | 6010B | 10.0 | 2.0 | 1 | 6/22/04 | 6/29/04 | 2.0 | U | |
| Copper | 7211 | 1.0 | 0.3 | 1 | 6/22/04 | 6/22/04 | 0.3 | U | N |
| Lead | 6010B | 50 | 20 | 1 | 6/22/04 | 6/29/04 | 20 | U | |
| Nickel | 6010B | 20.0 | 3.0 | 1 | 6/22/04 | 6/29/04 | 3.0 | U | |
| Selenium | 7740 | 2.0 | 1.0 | 1 | 6/22/04 | 6/30/04 | 1.0 | U | |
| Silver | 6010B | 10.0 | 7.0 | 1 | 6/22/04 | 6/29/04 | 7.0 | U | |
| Thallium | 6010B | 100 | 30 | 1 | 6/22/04 | 6/29/04 | 30 | U | |
| Vanadium | 6010B | 10.0 | 6.0 | 1 | 6/22/04 | 6/29/04 | 6.0 | U | |
| Zinc | 6010B | 10.0 | 3.0 | 1 | 6/22/04 | 6/29/04 | 3.0 | U | |

% Solids: 0.0

Comments:

CASE NARRATIVE

CLIENT: TETRA TECH FW, INC.

PROJECT: MFA, SITE 1, CTO 86

SDG: 04E241

**METHOD 7470A
DISSOLVED MERCURY BY COLD VAPOR**

Five (5) water samples were received on 05/27/04 for Dissolved Mercury Analysis by Method 7470A in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW846, 3rd ed.

1. Holding Time

Analysis met the holding time criteria.

2. Method Blank

Method blank was free of contamination at the reporting limit.

3. Lab Control Sample/Lab Control Sample Duplicate

Lab control results were within the control limits.

4. Serial Dilution

Sample E241-01 was analyzed for serial dilution. % Difference was not evaluated since diluted sample result was not detected. Analytical spike was performed and met the QC limits.

5. Matrix Spike/Matrix Spike Duplicate

MS/MSD sample was not designated in this SDG.

6. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criteria were met.

METHOD 7470A
DISSOLVED MERCURY BY COLD VAPOR

| Client : TETRA TECH FW, INC. | | | | | | | | | | | | | Matrix : WATER | |
|-------------------------------|-------------------|-------------------|-----|-------|--------------|---------------|-----------------------|-------------------------|------------|------------|------------|-------------------------|-----------------------|--|
| Project : MFA, SITE 1, CTD 86 | | | | | | | | | | | | | Instrument ID : T1047 | |
| Batch No. : 04E241 | | | | | | | | | | | | | | |
| SAMPLE ID | EMAX SAMPLE ID | RESULTS (ug/L) | DLF | MOIST | RL (ug/L) | MDL (ug/L) | Analysis DATE/TIME | Extraction DATE/TIME | LFID | CAL REF | PREP BATCH | Collection DATE/TIME | Received DATE/TIME | |
| MBLK1W | HGF0084B | ND | 1 | NA | .2 | .1 | 06/08/0410:49 | 06/07/0415:00 | M47F009010 | M47F009008 | HGF008W | NA | 06/07/04 | |
| LCS1W | HGF0084L | 4.72 | 1 | NA | .2 | .1 | 06/08/0410:52 | 06/07/0415:00 | M47F009011 | M47F009008 | HGF008W | NA | 06/07/04 | |
| LCD1W | HGF0084C | 4.76 | 1 | NA | .2 | .1 | 06/08/0410:54 | 06/07/0415:00 | M47F009012 | M47F009008 | HGF008W | NA | 06/07/04 | |
| 86-S1-004AS | E241-01A | 88 | 20 | NA | 4 | 2 | 06/08/0412:30 | 06/07/0415:00 | M47F009056 | M47F009054 | HGF008W | 05/25/04 | 05/27/04 | |
| 86-S1-004 | E241-01 | ND | 20 | NA | 4 | 2 | 06/08/0412:32 | 06/07/0415:00 | M47F009057 | M47F009054 | HGF008W | 05/25/04 | 05/27/04 | |
| 86-S1-004DL | E241-01T | ND | 100 | NA | 20 | 10 | 06/08/0412:34 | 06/07/0415:00 | M47F009058 | M47F009054 | HGF008W | 05/25/04 | 05/27/04 | |
| 86-S1-006 | E241-03 | ND | 20 | NA | 4 | 2 | 06/08/0412:36 | 06/07/0415:00 | M47F009059 | M47F009054 | HGF008W | 05/25/04 | 05/27/04 | |
| 86-S1-007 | E241-04 | ND | 20 | NA | 4 | 2 | 06/08/0412:39 | 06/07/0415:00 | M47F009060 | M47F009054 | HGF008W | 05/25/04 | 05/27/04 | |
| 86-S1-008 | E241-05 | ND | 20 | NA | 4 | 2 | 06/08/0412:41 | 06/07/0415:00 | M47F009061 | M47F009054 | HGF008W | 05/25/04 | 05/27/04 | |
| 86-S1-009 | E241-06 | ND | 20 | NA | 4 | 2 | 06/08/0412:43 | 06/07/0415:00 | M47F009062 | M47F009054 | HGF008W | 05/26/04 | 05/27/04 | |

RL: Reporting Limit

7002

**Laboratory Data Consultants, Inc.
Data Validation Report**

Project/Site Name: Moffett Airfield, CTO 86
Collection Date: May 25 through May 26, 2004
LDC Report Date: July 6, 2004
Matrix: Water
Parameters: Dissolved Mercury
Validation Level: EPA Level III & IV
Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 04E241

Sample Identification

86-S1-004
86-S1-006
86-S1-007**
86-S1-008
86-S1-009

**Indicates sample underwent EPA Level IV review

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Introduction

This data review covers 5 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 7470A for Dissolved Mercury.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (February 1994) as there are no current guidelines for the method stated above.

A table summarizing all data qualification flags is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from specified protocols or is of technical advisory nature.

Blanks are summarized in Section III.

Field duplicates are summarized in Section XIII.

Samples indicated by a double asterisk on the front cover underwent a EPA Level IV review. A EPA Level III review was performed on all of the other samples. Raw data were not evaluated for the samples reviewed by Level III criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

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Method blanks were reviewed for each matrix as applicable.

Data qualification by the initial, continuing and preparation blanks (ICB/CCB/PBs) was based on the maximum contaminant concentration in the ICB/CCB/PBs in the analysis of each analyte. No contaminant concentrations were found in the initial, continuing and preparation blanks.

is only a finger
pointed at

V. Matrix Spike Analysis

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

~~404~~ ~~St. Page 9~~
~~15~~ ~~St. Page 9~~

The laboratory has indicated that there were no duplicate (DUP) analyses specified for the samples in this SDG, and therefore duplicate analyses were not performed for this SDG.

VII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Internal Standards

ICP-MS was not utilized in this SDG.

IX. Furnace Atomic Absorption QC

Graphite furnace atomic absorption was not utilized in this SDG.

X. ICP Serial Dilution

ICP serial dilution was not required by the method.

XI. Sample Result Verification

All sample result verifications met validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XII. Overall Assessment of Data

Data flags have been summarized at the end of this report.

XIII. Field Duplicates

Samples 86-S1-006 and 86-S1-007** were identified as field duplicates. No mercury was detected in any of the samples.

XIV. Field Blanks

No field blanks were identified in this SDG.

Moffett Airfield, CTO 86

Dissolved Mercury - Data Qualification Summary - SDG 04E241

| SDG | Sample | Analyte | Flag | A or P | Reason |
|--------|-----------------------------------------------------------------|---------|-----------------------------------------|--------|----------------------------------------------|
| 04E241 | 86-S1-004 86-S1-006 86-S1-007** 86-S1-008 86-S1-009 | Mercury | J (all detects) UJ (all non-detects) | A | Matrix spike/Matrix spike duplicates (%R) |

Moffett Airfield, CTO 86

Dissolved Mercury - Laboratory Blank Data Qualification Summary - SDG 04E241

No Sample Data Qualified in this SDG

**Laboratory Data Consultants, Inc.
Data Validation Report**

Project/Site Name: Moffett Airfield, CTO 86
Collection Date: May 25, 2004
LDC Report Date: July 8, 2004
Matrix: Water
Parameters: Metals
Validation Level: EPA Level III & IV
Laboratory: Columbia Analytical Services, Inc.

Sample Delivery Group (SDG): K2403969

Sample Identification

86-S1-004
86-S1-006
86-S1-007**
86-S1-008
86-S1-009
86-S1-004RE
86-S1-006RE
86-S1-007RE**
86-S1-008RE
86-S1-009RE
86-S1-004MS
86-S1-004DUP
86-S1-004REMS
86-S1-004REDUP

**Indicates sample underwent EPA Level IV review



Introduction

This data review covers 14 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Methods 6010B, 200.8 and 7000 for Metals. The metals analyzed were Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, Copper, Lead, Nickel, Silver, Thallium, Vanadium, and Zinc.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (February 1994) as there are no current guidelines for the methods stated above.

A table summarizing all data qualification flags is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from specified protocols or is of technical advisory nature.

Blanks are summarized in Section III.

Field duplicates are summarized in Section XIII.

Samples indicated by a double asterisk on the front cover underwent a EPA Level IV review. A EPA Level III review was performed on all of the other samples. Raw data were not evaluated for the samples reviewed by Level III criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

An initial calibration was performed.

The frequency and analysis criteria of the initial calibration verification (ICV) and continuing calibration verification (CCV) were met.

III. Blanks

Method blanks were reviewed for each matrix as applicable.

Data qualification by the initial, continuing and preparation blanks (ICB/CCB/PBs) was based on the maximum contaminant concentration in the ICB/CCB/PBs in the analysis of each analyte. No contaminant concentrations were found in the initial, continuing and preparation blanks with the following exceptions:

| Method Blank ID | Analyte | Maximum Concentration | Associated Samples |
|-----------------|-----------------------------------------------|---------------------------------------------------|---------------------------------------------------------------------------|
| ICB/CCB | Chromium Copper (2x) | 2.2 ug/L 1.0 ug/L | 86-S1-004 86-S1-006 86-S1-007** 86-S1-008 86-S1-009 |
| PB (prop blank) | Beryllium Nickel Thallium | 0.004 ug/L 0.09 ug/L 0.001 ug/L | 86-S1-004RE 86-S1-006RE 86-S1-007RE** 86-S1-008RE 86-S1-009RE |
| ICB/CCB | Antimony Beryllium Selenium Thallium | 0.02 ug/L 0.011 ug/L 0.2 ug/L 0.017 ug/L | 86-S1-004RE 86-S1-006RE 86-S1-007RE** 86-S1-008RE 86-S1-009RE |

Sample concentrations were compared to the maximum contaminant concentrations detected in the ICB/CCB/PBs. The sample concentrations were either not detected or were significantly greater (>5X blank contaminants) than the concentrations found in the associated method blanks with the following exceptions:

| Sample | Analyte | Reported Concentration | Modified Final Concentration |
|---------------|----------------------------------------|---------------------------------------|------------------------------------------|
| 86-S1-004 | Copper | 0.7 ug/L | 0.7U ug/L |
| 86-S1-009 | Chromium | 9.5 ug/L | 9.5U ug/L |
| 86-S1-004RE | Beryllium | 0.009 ug/L | 0.009U ug/L |
| 86-S1-006RE | Antimony (2x) Beryllium Thallium | 0.90 ug/L 0.010 ug/L 0.006 ug/L | 0.90U ug/L 0.010U ug/L 0.006U ug/L |
| 86-S1-007RE** | Antimony (2x) Beryllium Thallium | 0.90 ug/L 0.011 ug/L 0.006 ug/L | 0.90U ug/L 0.011U ug/L 0.006U ug/L |
| 86-S1-008RE | Antimony (2x) Beryllium | 0.93 ug/L 0.006 ug/L | 0.93U ug/L 0.006U ug/L |
| 86-S1-009RE | Antimony (2x) Thallium | 0.65 ug/L 0.002 ug/L | 0.65U ug/L 0.002U ug/L |

IV. ICP Interference Check Sample (ICS) Analysis

The frequency of analysis was met.

The criteria for analysis were met.

V. Matrix Spike Analysis

Matrix spike (MS) analyses were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits with the following exceptions:

| Spike ID (Associated Samples) | Analyte | %R (Limits) | Flag | A or P |
|--------------------------------------------------------------------------------------------|---------------------------|-------------------------------------------|-----------------------------------------|--------|
| 86-S1-004MS (86-S1-004 86-S1-006 86-S1-007** 86-S1-008 86-S1-009) | Copper | 72 (75-125) | J (all detects) UJ (all non-detects) | A |
| 86-S1-010RE (86-S1-004RE 86-S1-006RE 86-S1-007RE** 86-S1-008RE 86-S1-009RE) | Arsenic Cobalt Zinc | 31 (75-125) 66 (75-125) 67 (75-125) | J (all detects) UJ (all non-detects) | A |

*DATA S1-004
IS Flagged*

VI. Duplicate Sample Analysis

Duplicate (DUP) sample analyses were reviewed for each matrix as applicable. Results were within QC limits.

VII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

VIII. Internal Standards

All internal standard percent recoveries (%R) were within QC limits with the following exceptions:

| Sample | Internal Standard | %R (Limits) | Analyte | Flag | A or P |
|---------------|--------------------------------------------------------|--------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| 86-S1-007RE** | Indium 115 | 154.3 (60-125) | Antimony Barium | J (all detects) J (all detects) | A |
| 86-S1-007RE** | Scandium 45 Nickel 61 Indium 115 Lutetium 175 | 130.2 (60-125) 188.8 (60-125) 139 (60-125) 149.5 (60-125) | Arsenic Beryllium Cadmium Chromium Cobalt Copper Lead Nickel Silver Thallium Zinc | J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) | A |

IX. Furnace Atomic Absorption QC

All graphite furnace atomic absorption QC were within validation criteria for samples on which a EPA Level IV review was performed with the following exceptions:

| Analytical Spike | Analyte | %R (Limits) | Associated Sample | Flag | A or P |
|------------------|-------------------------------|-------------------------------------------------|-----------------------------------------------------------------|-----------------------------------------|--------|
| 86-S1-004A | Arsenic Copper Selenium | 80.0 (85-115) 77.3 (85-115) 75.0 (85-115) | 86-S1-004 86-S1-006 86-S1-007** 86-S1-008 86-S1-009 | J (all detects) UJ (all non-detects) | A |

Raw data were not evaluated for samples reviewed by Level III criteria.

X. ICP Serial Dilution

Although ICP serial dilution analysis was not required by the method, it was performed by the laboratory. The analysis criteria were met.

XI. Sample Result Verification

All sample result verifications met validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XII. Overall Assessment of Data

Data flags have been summarized at the end of this report.

XIII. Field Duplicates

Samples 86-S1-006 and 86-S1-007** and samples 86-S1-006RE and 86-S1-007RE** were identified as field duplicates. No metals were detected in any of the samples with the following exceptions:

| Analyte | Concentration (ug/L) | | RPD |
|----------|----------------------|-------------|----------------|
| | 86-S1-006 | 86-S1-007** | |
| Antimony | 24.3 | 20U | Not calculable |
| Arsenic | 5.5 | 6.0 | 9 |
| Barium | 136 | 135 | 1 |
| Cobalt | 12.6 | 12.9 | 2 |
| Nickel | 5.5 | 7.5 | 31 |
| Vanadium | 9.0 | 6.0U | Not calculable |

| Analyte | Concentration (ug/L) | | RPD |
|-----------|----------------------|---------------|-----|
| | 86-S1-006RE | 86-S1-007RE** | |
| Antimony | 0.90 | 0.90 | 0 |
| Arsenic | 5.35 | 4.92 | 8 |
| Barium | 152 | 155 | 2 |
| Beryllium | 0.010 | 0.011 | 10 |

| Analyte | Concentration (ug/L) | | RPD |
|----------|----------------------|---------------|----------------|
| | 86-S1-006RE | 86-S1-007RE** | |
| Calcium | 0.011 | 0.009 | 20 |
| Chromium | 0.56 | 0.54 | 4 |
| Cobalt | 7.16 | 7.69 | 7 |
| Copper | 0.14 | 0.11 | 24 |
| Lead | 0.020 | 0.022 | 10 |
| Nickel | 9.47 | 9.72 | 3 |
| Silver | 0.016 | 0.033 | 69 |
| Thallium | 0.006 | 0.006 | 0 |
| Vanadium | 9.0 | 6.0U | Not calculable |
| Zinc | 1.22 | 1.19 | 2 |

XIV. Field Blanks

No field blanks were identified in this SDG.

Moffett Airfield, CTO 86

Metals - Data Qualification Summary - SDG K2403969

| SDG | Sample | Analyte | Flag | A or P | Reason |
|----------|---------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------------------------------------|
| K2403969 | 86-S1-004 86-S1-006 86-S1-007** 86-S1-008 86-S1-009 | Copper | J (all detects) UJ (all non-detects) | A | Matrix spike analysis (%R) |
| K2403969 | 86-S1-004RE 86-S1-006RE 86-S1-007RE** 86-S1-008RE 86-S1-009RE | Arsenic Cobalt Zinc | J (all detects) UJ (all non-detects) | A | Matrix spike analysis (%R) |
| K2403969 | 86-S1-007RE** | Antimony Barium Arsenic Beryllium Cadmium Chromium Cobalt Copper Lead Nickel Silver Thallium Zinc | J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) | A | Internal standards (area) |
| K2403969 | 86-S1-004 86-S1-006 86-S1-007** 86-S1-008 86-S1-009 | Arsenic Copper Selenium | J (all detects) UJ (all non-detects) | A | Furnace atomic absorption QC (%R) |

Moffett Airfield, CTO 86

Metals - Laboratory Blank Data Qualification Summary - SDG K2403969

| SDG | Sample | Analyte | Modified Final Concentration | A or P |
|----------|-------------|----------------------------------------|------------------------------------------|--------|
| K2403969 | 86-S1-004 | Copper | 0.7U ug/L | A |
| K2403969 | 86-S1-009 | Chromium | 9.5U ug/L | A |
| K2403969 | 86-S1-004RE | Beryllium | 0.009U ug/L | A |
| K2403969 | 86-S1-006RE | Antimony (2x) Beryllium Thallium | 0.90U ug/L 0.010U ug/L 0.006U ug/L | A |

| SDG | Sample | Analyte | Modified Final Concentration | A or P |
|----------|---------------|----------------------------------------|------------------------------------------|--------|
| K2403969 | 86-S1-007HE** | Antimony (2x) Beryllium Thallium | 0.90U ug/L 0.011U ug/L 0.006U ug/L | A |
| K2403969 | 86-S1-008RE | Antimony (2x) Beryllium | 0.93U ug/L 0.006U ug/L | A |
| K2403969 | 86-S1-009RE | Antimony (2x) Thallium | 0.65U ug/L 0.002U ug/L | A |

**Laboratory Data Consultants, Inc.
Data Validation Report**

Project/Site Name: Moffett Airfield, CTO 86
Collection Date: May 25, 2004
LDC Report Date: July 1, 2004
Matrix: Water
Parameters: Polychlorinated Biphenyls
Validation Level: EPA Level III & IV
Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 04E241

Sample Identification

86-S1-004
86-S1-006
86-S1-007**
86-S1-008
86-S1-009

**Indicates sample underwent EPA Level IV review.

V
48

Introduction

This data review covers 5 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8082 for Polychlorinated Biphenyls.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification flags is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XIV.

Samples indicated by a double asterisk on the front cover underwent a EPA Level IV review. A EPA Level III review was performed on all other samples. Raw data were not evaluated for the samples reviewed by Level III criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UU Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/ECD Instrument Performance Check

Instrument performance data were not provided and therefore not reviewed.

III. Initial Calibration

Initial calibration of multicomponent compounds was performed for the primary (quantitation) column as required by the method.

The percent relative standard deviations (%RSD) were less than or equal to 20.0% for all compounds.

Retention time windows were evaluated and considered technically acceptable for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples on which a Level III review was performed.

IV. Continuing Calibration

Continuing calibration was performed at required frequencies.

The percent differences (%D) of calibration factors in continuing standard mixtures were within the 15.0% QC limits.

Initial calibration verification (ICV) percent differences (%D) were less than or equal to 20.0% for all compounds.

Retention time windows were evaluated and considered technically acceptable for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples on which a Level III review was performed.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No polychlorinated biphenyl contaminants were found in the method blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Pesticide Cleanup Checks

a. Florisil Cartridge Check

Florisil cleanup was not required and therefore not performed in this SDG.

b. GPC Calibration

GPC cleanup was not required and therefore not performed in this SDG.

XI. Target Compound Identification

All target compound identifications were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XII. Compound Quantitation and Reported CRQLs

All compound quantitation and CRQLs were within validation criteria for samples on which an EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XIII. Overall Assessment of Data

Data flags are summarized at the end of this report.

XIV. Field Duplicates

Samples 86-S1-006 and 86-S1-007** were identified as field duplicates. No polychlorinated biphenyls were detected in any of the samples.

XV. Field Blanks

No field blanks were identified in this SDG.

Moffett Airfield, CTO 86

Polychlorinated Biphenyls - Data Qualification Summary - SDG 04E241

No Sample Data Qualified in this SDG

Moffett Airfield, CTO 86

Polychlorinated Biphenyls - Laboratory Blank Data Qualification Summary - SDG 04E241

No Sample Data Qualified in this SDG

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Moffett Airfield, CTO 86
Collection Date: May 25, 2004
LDC Report Date: July 2, 2004
Matrix: Water
Parameters: Chlorinated Pesticides
Validation Level: EPA Level III & IV
Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 04E241

Sample Identification

86-S1-004
86-S1-006
86-S1-007**
86-S1-008
86-S1-009

**Indicates sample underwent EPA Level IV review.

J
4/8

Introduction

This data review covers 5 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8081A for Chlorinated Pesticides.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification flags is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XIV.

Samples indicated by a double asterisk on the front cover underwent a EPA Level IV review. A EPA Level III review was performed on all other samples. Raw data were not evaluated for the samples reviewed by Level III criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UU Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/ECD Instrument Performance Check

Instrument performance was acceptable unless noted otherwise under initial calibration and continuing calibration sections.

III. Initial Calibration

Initial calibration of single and multicomponent compounds was performed for the primary (quantitation) column and confirmation column as required by this method.

The percent relative standard deviations (%RSD) were less than or equal to 20.0% for all compounds.

Retention time windows were evaluated and considered technically acceptable for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples on which a Level III review was performed.

IV. Continuing Calibration

Continuing calibration was performed at required frequencies.

The percent differences (%D) of calibration factors in continuing standard mixtures were within the 15.0% QC limits with the following exceptions:

| Date | Standard | Column | Compound | %D | Associated Samples | Flag | A or P |
|--------|----------|-----------|--------------------------------------|----------------|-----------------------------------------------------------------|-----------------------------------------|--------|
| 6/3/04 | SF02031A | RTX-CLP | 4,4'-DDE 4,4'-DDD Methoxychlor | 16 17 20 | 86-S1-004 86-S1-006 86-S1-007** 86-S1-008 86-S1-009 | J (all detects) UJ (all non-detects) | A |
| 6/3/04 | SF02031A | RTX-CLPII | Methoxychlor | 15.4 | 86-S1-004 86-S1-006 86-S1-007** 86-S1-008 86-S1-009 | J (all detects) UJ (all non-detects) | A |

Initial calibration verification (ICV) percent differences (%D) were less than or equal to 20.0% for all compounds.

Retention time windows were evaluated and considered technically acceptable for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples on which a Level III review was performed.

The individual 4,4'-DDT and Endrin breakdowns were less than 15.0% .

V. Blanks

Method blanks were reviewed for each matrix as applicable. No chlorinated pesticide contaminants were found in the method blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Pesticide Cleanup Checks

a. Florisil Cartridge Check

Florisil cleanup was not required and therefore not performed in this SDG.

b. GPC Calibration

GPC cleanup was not required and therefore not performed in this SDG.

XI. Target Compound Identification

All target compound identifications were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XII. Compound Quantitation and Reported CRQLs

All compound quantitation and CRQLs were within validation criteria for samples on which an EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XIII. Overall Assessment of Data

Data flags are summarized at the end of this report.

XIV. Field Duplicates

Samples 86-S1-006 and 86-S1-007** were identified as field duplicates. No chlorinated pesticides were detected in any of the samples.

XV. Field Blanks

No field blanks were identified in this SDG.

Moffett Airfield, CTO 86

Chlorinated Pesticides - Data Qualification Summary - SDG 04E241

| SDG | Sample | Compound | Flag | A or P | Reason |
|--------|-----------------------------------------------------------------|--------------------------------------|-----------------------------------------|--------|--------------------------------|
| 04E241 | 86-S1-004 86-S1-006 86-S1-007** 86-S1-008 86-S1-009 | 4,4'-DDE 4,4'-DDD Methoxychlor | J (all detects) UJ (all non-detects) | A | Continuing calibration (%D) |

Moffett Airfield, CTO 86

Chlorinated Pesticides - Laboratory Blank Data Qualification Summary - SDG 04E241

No Sample Data Qualified in this SDG

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Moffett Field, CTO 86
Collection Date: May 25, 2004
LDC Report Date: July 2, 2004
Matrix: Water
Parameters: Semivolatiles
Validation Level: EPA Level III & IV
Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 04E241

Sample Identification

86-S1-004
86-S1-006
86-S1-007**
86-S1-008
86-S1-009

**Indicates sample underwent EPA Level IV review

✓
K

Introduction

This data review covers 5 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8270C for Semivolatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XVI.

Samples indicated by a double asterisk on the front cover underwent a EPA Level IV review. A EPA Level III review was performed on all of the other samples. Raw data were not evaluated for the samples reviewed by Level III criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

The mean percent relative standard deviation (%RSD) for selected compounds was less than or equal to 15.0% and less than or equal to 30.0% for selected individual compounds.

A curve fit, based on the initial calibration, was established for quantitation for selected compounds. The coefficient of determination (r^2) was greater than or equal to 0.990.

Average relative response factors (RRF) for all system performance check compounds (SPCCs) were within method criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

The mean percent difference (%D) between the initial calibration RRF and the continuing calibration RRF was less than or equal to 20.0% and less than or equal to 25.0% for individual compounds.

For the purposes of technical evaluation, all compounds were evaluated against the 25.0% (%D) National Functional Guideline criteria. Unless noted above, all compounds were within the validation criteria.

Initial calibration verification (ICV) percent differences (%D) were less than or equal to 20.0% for all compounds.

All of the continuing calibration RRF values for all system performance check compounds (SPCCs) were within method and validation criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No semivolatile contaminants were found in the method blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XII. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XV. Overall Assessment

Data flags have been summarized at the end of the report.

XVI. Field Duplicates

Samples 86-S1-006 and 86-S1-007** were identified as field duplicates. No semivolatiles were detected in any of the samples.

XVII. Field Blanks

No field blanks were identified in this SDG.

Moffett Field, CTO 86

Semivolatiles - Data Qualification Summary - SDG 04E241

No Sample Data Qualified in this SDG

Moffett Field, CTO 86

Semivolatiles - Laboratory Blank Data Qualification Summary - SDG 04E241

No Sample Data Qualified in this SDG

COPY

LDC Report# 12145B1

**Laboratory Data Consultants, Inc.
Data Validation Report**

Project/Site Name: Moffett Airfield, CTO 86
Collection Date: May 25, 2004
LDC Report Date: July 2, 2004
Matrix: Water
Parameters: Volatiles
Validation Level: EPA Level III & IV
Laboratory: EMAX Laboratories, Inc.
Sample Delivery Group (SDG): 04E241

Sample Identification

86-S1-004
86-S1-015
86-S1-006
86-S1-007**
86-S1-008
86-S1-009

**Indicates sample underwent EPA Level IV review

✓
YB

Introduction

This data review covers 6 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8260B for Volatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XVI.

Samples indicated by a double asterisk on the front cover underwent a EPA Level IV review. A EPA Level III review was performed on all of the other samples. Raw data were not evaluated for the samples reviewed by Level III criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met with the following exceptions:

Not Flagged due to pH's

| Sample | Compound | Total Days From Sample Collection Until Extraction | Required Holding Time (in Days) From Sample Collection Until Extraction | Flag | <i>g. 19.2</i> A or B |
|----------------------------------------------------------|-------------------|----------------------------------------------------|-------------------------------------------------------------------------|-----------------------------------------|--------------------------|
| 86-S1-004 ✓ 86-S1-006 ✓ 86-S1-007 ✓ 86-S1-009 ✓ | All TCL compounds | 8 | 7 | J (all detects) UJ (all non-detects) | P |

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

The mean percent relative standard deviation (%RSD) was less than or equal to 15.0% and less than or equal to 30.0% for individual compounds.

A curve fit, based on the initial calibration, was established for quantitation for selected samples. The coefficient of determination (r^2) was greater than or equal to 0.990.

Average relative response factors (RRF) for all system performance check compounds (SPCCs) were within method criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

The mean percent difference (%D) between the initial calibration RRF and the continuing calibration RRF was less than or equal to 20.0% and less than or equal to 25.0% for individual compounds with the following exceptions:

| Date | Compound | %D | Associated Samples | Flag | A or P |
|--------|----------------------------------------|--------------|---------------------------------------------------------------------------|------------------------------------------------------------------------------------|--------|
| 6/1/04 | Dichlorodifluoromethane Naphthalene | 44.4 26.4 | 86-S1-015 MBLK1W | J (all detects) UJ (all non-detects) J (all detects) UJ (all non-detects) | A |
| 6/2/04 | Dichlorodifluoromethane | 37.1 | 86-S1-004 86-S1-006 86-S1-007** 86-S1-008 86-S1-009 MBLK2W | J (all detects) UJ (all non-detects) | A |

For the purposes of technical evaluation, all compounds were evaluated against the 25.0% (%D) National Functional Guideline criteria. Unless noted above, all compounds were within the validation criteria.

Initial calibration verification (ICV) percent differences (%D) were less than or equal to 20.0% for all compounds with the following exceptions:

| Date | Compound | %D | Associated Samples | Flag | A or P |
|---------|--------------------------------------------------------------------------|------------------------------|------------------------------|-----------------------------------------|--------|
| 5/27/04 | Chloromethane Vinyl chloride 1,1-Dichloropropene n-Butylbenzene | 25.0 20.6 23.8 22.1 | All samples in SDG 04E241 | J (all detects) UJ (all non-detects) | P |

All of the continuing calibration RRF values for all system performance check compounds (SPCCs) were within method and validation criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No volatile contaminants were found in the method blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XII. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XV. Overall Assessment of Data

Data flags have been summarized at the end of the report.

XVI. Field Duplicates

Samples 86-S1-006 and 86-S1-007** were identified as field duplicates. No volatiles were detected in any of the samples.

XVII. Field Blanks

Sample 86-S1-015 was identified as a trip blank. No volatile contaminants were found in this blank.

Moffett Airfield, CTO 86

Volatiles - Data Qualification Summary - SDG 04E241

| SDG | Sample | Compound | Flag | A or P | Reason |
|--------|------------------------------------------------------------------------------|--------------------------------------------------------------------------|------------------------------------------------------------------------------------|--------|---------------------------------|
| 04E241 | 86-S1-004 86-S1-006 86-S1-007** 86-S1-009 | All TCL compounds | J (all detects) UJ (all non-detects) | P | Technical holding times |
| 04E241 | 86-S1-015 | Dichlorodifluoromethane Naphthalene | J (all detects) UJ (all non-detects) J (all detects) UJ (all non-detects) | A | Continuing calibration (%D) |
| 04E241 | 86-S1-004 86-S1-006 86-S1-007** 86-S1-008 86-S1-009 | Dichlorodifluoromethane | J (all detects) UJ (all non-detects) | A | Continuing calibration (%D) |
| 04E241 | 86-S1-004 86-S1-015 86-S1-006 86-S1-007** 86-S1-008 86-S1-009 | Chloromethane Vinyl chloride 1,1-Dichloropropene n-Butylbenzene | J (all detects) UJ (all non-detects) | P | Continuing calibration (ICV %D) |

Moffett Airfield, CTO 86

Volatiles - Laboratory Blank Data Qualification Summary - SDG 04E241

No Sample Data Qualified in this SDG



CHAIN-OF-CUSTODY RECORD

| PROJECT NAME CT086-Site1-Q2/04 | | PURCHASE ORDER NO. 20848-Task 28 | | ANALYSES REQUIRED | | | | | | | | | | LABORATORY NAME emax | | Project Information Section Do not submit to Laboratory | | | | | | |
|--------------------------------------------|----------------|-------------------------------------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|--|--|--|--|--|--|----------------------------------------------------------------|--|------------------------------------------------------------------|--|----------|-------------------------------------|-------|-----|-----|
| PROJECT LOCATION Moffett | | PROJECT NO. 1990.086E | | <div style="display: flex; flex-direction: row-reverse;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">epa 8260B extended list</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">epa 8270C extended list</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">epa 8081A extended list</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">epa 8082 extended list</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">epa 300.9 Dis. Metals</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">epa 7470A Dis. Mercury</div> </div> | | | | | | | | | | LABORATORY ID (FOR LABORATORY) 04E247 0240396C metals | | | | | | | | |
| SAMPLER NAME D. Harrison | | SAMPLER SIGNATURE [Signature] | | | | | | | | | | | | | | | | | | | | |
| PROJECT CONTACT Lisa Bienkowski | | AIRBILL NUMBER | | | | | | | | | | | | | | | | | | | | |
| SAMPLE ID | DATE COLLECTED | TIME COLLECTED | NO. OF CONTAINER | LEVEL | | TYPE | T A T | | | | | | | | | | | COMMENTS | LOCATION | DEPTH | | QC |
| | | | | 3 | 4 | | | | | | | | | | | | | | | START | END | |
| 86-SI-010 | 5/26/04 | 0910 | 33 | X | | W | day | | | | | | | | | | | MS/MSD | W1-5 | | | Reg |
| 86-SI-016 | 5/26/04 | 1230 | 3 | X | | W | day | | | | | | | | | | | | Trip Blank | | | Reg |
| 86-SI-011 | 5/26/04 | 1240 | 11 | X | | W | day | | | | | | | | | | | | W1-8 | | | Reg |
| 86-SI-012 | 5/26/04 | 1325 | 11 | X | | W | day | | | | | | | | | | | | W1-24 | | | Reg |
| 86-SI-013 | 5/26/04 | 1415 | 11 | X | | W | day | | | | | | | | | | | | W1-16 | | | Reg |
| [Large diagonal X across empty rows] | | | | | | | | | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | | | | | | | | | |
| RELINQUISHED BY (Signature) [Signature] | | DATE 5/27/04 | | RECEIVED BY (Signature) [Signature] | | LABORATORY INSTRUCTIONS/COMMENTS Metals + Mercury were field filtered | | | | | | | | | | | | | SAMPLING COMMENT: Site1 Q2/04 | | | |
| COMPANY FLORIX | | TIME 1300 | | COMPANY | | | | | | | | | | | | | | | | | | |
| RELINQUISHED BY (Signature) | | DATE | | RECEIVED BY (Signature) | | COMPOSITE DESCRIPTION | | | | | | | | | | | | | | | | |
| COMPANY | | TIME | | COMPANY | | | | | | | | | | | | | | | | | | |
| RELINQUISHED BY (Signature) | | DATE | | RECEIVED BY (Signature) | | SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY) | | | | | | | | | | | | | | | | |
| COMPANY | | TIME | | COMPANY | | TEMPERATURE: _____ SAMPLE CONDITION: <input type="checkbox"/> INTACT <input type="checkbox"/> BROKEN COOLER SEAL: <input type="checkbox"/> INTACT <input type="checkbox"/> BROKEN | | | | | | | | | | | | | | | | |

INC.

8889
0818

E247

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Suite 200

y Report
MFA, Site 1, CTO 86Laboratory report for samples received on
reported include :

| Control # | Col Date | Matrix | Analysis |
|-----------|----------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| E247-01 | 05/26/04 | WATER | VOLATILE ORGANICS BY GC/MS PESTICIDES ORGANOCHLORINE POLYCHLORINATED BIPHENYLS (PCBS) METALS DISSOLVED BY ICP* MERCURY DISSOLVED SEMIVOLATILE ORGANICS BY GCMS |
| E247-02 | 05/26/04 | WATER | VOLATILE ORGANICS BY GC/MS |
| E247-03 | 05/26/04 | WATER | VOLATILE ORGANICS BY GC/MS PESTICIDES ORGANOCHLORINE POLYCHLORINATED BIPHENYLS (PCBS) METALS DISSOLVED BY ICP* MERCURY DISSOLVED SEMIVOLATILE ORGANICS BY GCMS |
| E247-04 | 05/26/04 | WATER | VOLATILE ORGANICS BY GC/MS PESTICIDES ORGANOCHLORINE POLYCHLORINATED BIPHENYLS (PCBS) METALS DISSOLVED BY ICP* MERCURY DISSOLVED SEMIVOLATILE ORGANICS BY GCMS |

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CASE NARRATIVE

CLIENT: TETRA TECH FW, INC.
PROJECT: MFA, SITE 1, CTO 86
SDG: 04E247

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Five (5) water samples were received on 05/28/04 for Volatile Organic analysis by Method 5030B/8260B in accordance with USEPA SW846, 3rd ed.

1. Holding Time
Samples E247-01, -03, -04 and -05 were labeled HCl preserved but had pH around 7. Samples were analyzed within 7 days.
2. Tuning and Calibration
Tuning and calibration were carried out at 12-hour interval. All QC requirements were met.
3. Method Blank
Method blank was free of contamination at the reporting limit.
4. Surrogate Recovery
Recoveries were within QC limit.
5. Lab Control Sample/Lab Control Sample Duplicate
Recoveries were within QC limit.
6. Matrix Spike/Matrix Spike Duplicate
Sample E247-01 was spiked. All recoveries were within QC limit.
7. Sample Analysis
Samples were analyzed according to the prescribed QC procedures. All criteria were met.

SW 50308/82608
 VOLATILE ORGANICS BY GC/MS

| | |
|-------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 05/28/04 |
| Project : MFA, SITE 1, CTO 86 | Date Received: 05/28/04 |
| Batch No. : 04E247 | Date Extracted: 06/01/04 21:38 |
| Sample ID: 86-S1-010 | Date Analyzed: 06/01/04 21:38 |
| Lab Samp ID: E247-01 | Dilution Factor: 1 |
| Lab File ID: RFQ011 | Matrix: WATER |
| Ext Btch ID: V003F01 | % Moisture: NA |
| Calib. Ref.: RDQ134 | Instrument ID: T-005 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-------------------------------|-------------------|--------------|---------------|
| 1,1,1,2-TETRACHLOROETHANE | ND | 45 | 5 |
| 1,1,1-TRICHLOROETHANE | ND | | 5 |
| 1,1,2,2-TETRACHLOROETHANE | ND | | 5 |
| 1,1,2-TRICHLOROETHANE | ND | | 5 |
| 1,1-DICHLOROETHANE | ND | | 5 |
| 1,1-DICHLOROETHENE | ND | | 5 |
| 1,1-DICHLOROPROPENE | ND | | 5 |
| 1,2,3-TRICHLOROBENZENE | ND | | 5 |
| 1,2,4-TRICHLOROPROPANE | ND | | 5 |
| 1,2,4-TRICHLOROBENZENE | ND | | 5 |
| 1,3,5-TRIMETHYLBENZENE | ND | | 5 |
| 1,3,5-DIBROMO-3-CHLOROPROPANE | ND | | 5 |
| 1,3,5-DICHLOROBENZENE | ND | | 5 |
| 1,3,5-DICHLOROETHANE | ND | | 5 |
| 1,3,5-DICHLOROPROPANE | ND | | 5 |
| 1,3,5-TRIMETHYLBENZENE | ND | | 5 |
| 1,3,5-DICHLOROBENZENE | ND | | 5 |
| 1,3,5-DICHLOROPROPANE | ND | | 5 |
| 1,4-DICHLOROBENZENE | ND | | 5 |
| 2,2-DICHLOROPROPANE | ND | | 5 |
| 2-BUTANONE | ND | | 5 |
| 2-CHLOROTOLUENE | ND | | 5 |
| 2-HEXANONE | ND | | 5 |
| 4-CHLOROTOLUENE | ND | | 5 |
| 4-METHYL-2-PENTANONE | ND | | 5 |
| ACETONE | ND | | 5 |
| BENZENE | ND | | 5 |
| BROMOBENZENE | ND | | 5 |
| BROMOCHLOROMETHANE | ND | | 5 |
| BROMODICHLOROMETHANE | ND | | 5 |
| BROMOFORM | ND | | 5 |
| BROMOMETHANE | ND | | 5 |
| CARBON DISULFIDE | ND | | 5 |
| CARBON TETRACHLORIDE | ND | | 5 |
| CHLOROBENZENE | ND | | 5 |
| CHLOROETHANE | ND | | 5 |
| CHLOROFORM | ND | | 5 |
| CHLOROMETHANE | ND | | 5 |
| CIS-1,2-DICHLOROETHENE | ND | | 5 |
| CIS-1,3-DICHLOROPROPENE | ND | | 5 |
| DIBROMOCHLOROMETHANE | ND | | 5 |
| DIBROMOMETHANE | ND | | 5 |
| DICHLORODIFLUOROMETHANE | ND | | 5 |
| ETHYLBENZENE | ND | | 5 |
| HEXACHLOROBUTADIENE | ND | | 5 |
| ISOPROPYL BENZENE | ND | | 5 |
| M/P-XYLENES | ND | | 5 |
| METHYLENE CHLORIDE | ND | | 5 |
| N-BUTYLBENZENE | ND | | 5 |
| N-PROPYLBENZENE | ND | | 5 |
| NAPHTHALENE | ND | | 5 |
| O-XYLENE | ND | | 5 |
| P-ISOPROPYLTOLUENE | ND | | 5 |
| SEC-BUTYLBENZENE | ND | | 5 |
| STYRENE | ND | | 5 |
| TERT-BUTYLBENZENE | ND | | 5 |
| TETRACHLOROETHYLENE | ND | | 5 |
| TOLUENE | ND | | 5 |
| TRANS-1,2-DICHLOROETHENE | ND | | 5 |
| TRANS-1,3-DICHLOROPROPENE | ND | | 5 |
| TRICHLOROETHENE | ND | | 5 |
| TRICHLOROFLUOROMETHANE | ND | | 5 |
| VINYL CHLORIDE | ND | | 5 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|-----------------------|------------|----------|
| 1,2-DICHLOROETHANE-D4 | 115 | 62-139 |
| TOLUENE-D8 | 98 | 75-125 |
| BROMOFLUOROBENZENE | 94 | 75-125 |

R.L. : Reporting limit
 * : Out of QC
 E : Exceeded calibration range
 B : Found in associated method blank
 J : Value between R.L. and MDL
 D : Value from dilution analysis
 D.O. : Diluted out

7/6/04

2004

SW 50308/82608
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH FW, INC.
Project : MFA, SITE 1, CTO 86
Batch No. : 04E247
Sample ID: 86-S1-016
Lab Samp ID: E247-02
Lab File ID: RF0009
Ext Btch ID: V003F01
Calib. Ref.: RDQ134

Date Collected: 05/26/04
Date Received: 05/28/04
Date Extracted: 06/01/04 20:20
Date Analyzed: 06/01/04 20:20
Dilution Factor: 1
Matrix : WATER
% Moisture : NA
Instrument ID : T-005

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 1,1,1,2-TETRACHLOROETHANE | ND | .5 | .5 |
| 1,1,1-TRICHLOROETHANE | ND | .5 | .5 |
| 1,1,2,2-TETRACHLOROETHANE | ND | .5 | .5 |
| 1,1,2-TRICHLOROETHANE | ND | .5 | .5 |
| 1,1-DICHLOROETHANE | ND | .5 | .5 |
| 1,1-DICHLOROETHENE | ND | .5 | .5 |
| 1,1-DICHLOROPROPENE | ND | .5 | .5 |
| 1,2,3-TRICHLOROBENZENE | ND | .5 | .5 |
| 1,2,3-TRICHLOROPROPANE | ND | .5 | .5 |
| 1,2,4-TRICHLOROBENZENE | ND | .5 | .5 |
| 1,2,4-TRIMETHYLBENZENE | ND | .5 | .5 |
| 1,2-DIBROMO-3-CHLOROPROPANE | ND | .5 | .5 |
| 1,2-DICHLOROBENZENE | ND | .5 | .5 |
| 1,2-DICHLOROETHANE | ND | .5 | .5 |
| 1,2-DICHLOROPROPANE | ND | .5 | .5 |
| 1,3,5-TRIMETHYLBENZENE | ND | .5 | .5 |
| 1,3-DICHLOROBENZENE | ND | .5 | .5 |
| 1,3-DICHLOROPROPANE | ND | .5 | .5 |
| 1,4-DICHLOROBENZENE | ND | .5 | .5 |
| 1,2-DICHLOROPROPANE | ND | .5 | .5 |
| BUTANONE | ND | .5 | .5 |
| CHLOROTOLUENE | ND | .5 | .5 |
| HEXANONE | ND | .5 | .5 |
| CHLOROTOLUENE | ND | .5 | .5 |
| 4-METHYL-2-PENTANONE | ND | .5 | .5 |
| ACETONE | ND | .5 | .5 |
| BENZENE | ND | .5 | .5 |
| BROMOBENZENE | ND | .5 | .5 |
| BROMOCHLOROMETHANE | ND | .5 | .5 |
| BROMODICHLOROMETHANE | ND | .5 | .5 |
| BROMOFORM | ND | .5 | .5 |
| BROMOMETHANE | ND | .5 | .5 |
| CARBON DISULFIDE | ND | .5 | .5 |
| CARBON TETRACHLORIDE | ND | .5 | .5 |
| CHLOROBENZENE | ND | .5 | .5 |
| CHLOROETHANE | ND | .5 | .5 |
| CHLOROFORM | ND | .5 | .5 |
| CHLOROMETHANE | ND | .5 | .5 |
| CIS-1,2-DICHLOROETHENE | ND | .5 | .5 |
| CIS-1,3-DICHLOROPROPENE | ND | .5 | .5 |
| DIBROMOCHLOROMETHANE | ND | .5 | .5 |
| DIBROMOMETHANE | ND | .5 | .5 |
| DICHLORODIFLUOROMETHANE | ND | .5 | .5 |
| ETHYLBENZENE | ND | .5 | .5 |
| HEXACHLOROBUTADIENE | ND | .5 | .5 |
| ISOPROPYL BENZENE | ND | .5 | .5 |
| M/P-XYLENES | ND | .5 | .5 |
| METHYLENE CHLORIDE | ND | .5 | .5 |
| N-BUTYLBENZENE | ND | .5 | .5 |
| N-PROPYLBENZENE | ND | .5 | .5 |
| NAPHTHALENE | ND | .5 | .5 |
| O-XYLENE | ND | .5 | .5 |
| P-ISOPROPYLTOLUENE | ND | .5 | .5 |
| SEC-BUTYLBENZENE | ND | .5 | .5 |
| STYRENE | ND | .5 | .5 |
| TERT-BUTYLBENZENE | ND | .5 | .5 |
| TETRACHLOROETHYLENE | ND | .5 | .5 |
| TOLUENE | ND | .5 | .5 |
| TRANS-1,2-DICHLOROETHENE | ND | .5 | .5 |
| TRANS-1,3-DICHLOROPROPENE | ND | .5 | .5 |
| TRICHLOROETHENE | ND | .5 | .5 |
| TRICHLOROFLUOROMETHANE | ND | .5 | .5 |
| VINYL CHLORIDE | ND | .5 | .5 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|-----------------------|------------|----------|
| 1,2-DICHLOROETHANE-D4 | 103 | 62-130 |
| TOLUENE-D8 | 102 | 75-105 |
| BROMOFLUOROBENZENE | 97 | 75-125 |

R.L. : Reporting limit
* : Out of QC
E : Exceeded calibration range
B : Found in associated method blank
J : Value between R.L. and MDL
D : Value from dilution analysis
D.O. : Diluted out

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2005

SW 50308/82608
VOLATILE ORGANICS BY GC/MS

| | |
|-------------------------------|--------------------------------|
| Client : TETRA TECH, FW, INC. | Date Collected: 05/26/04 |
| Project : MFA, SITE 1, CTO 86 | Date Received: 05/28/04 |
| Batch No. : 04E247 | Date Extracted: 06/01/04 22:18 |
| Sample ID: 86-S1-011 | Date Analyzed: 06/01/04 22:18 |
| Lab Samp ID: E247-03 | Dilution Factor: 1 |
| Lab File ID: RF0012 | Matrix : WATER |
| Ext Btch ID: V003F01 | % Moisture : NA |
| Calib. Ref.: R00134 | Instrument ID : T-005 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 1,1,2-TETRACHLOROETHANE | ND | 1.5 | 0.3 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 1.5 | 0.3 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 1.5 | 0.3 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 1.5 | 0.3 |
| 1,1-DICHLOROETHANE | ND | 1.5 | 0.3 |
| 1,1-DICHLOROETHANE | ND | 1.5 | 0.3 |
| 1,1-DICHLOROETHANE | ND | 1.5 | 0.3 |
| 1,1-DICHLOROETHANE | ND | 1.5 | 0.3 |
| 1,2,3-TRICHLOROBENZENE | ND | 1.5 | 0.3 |
| 1,2,3-TRICHLOROPROPANE | ND | 1.5 | 0.3 |
| 1,2,4-TRICHLOROBENZENE | ND | 1.5 | 0.3 |
| 1,2,4-TRIMETHYLBENZENE | ND | 1.5 | 0.3 |
| 1,2-DIBROMO-3-CHLOROPROPANE | ND | 1.5 | 0.3 |
| 1,2-DICHLOROBENZENE | ND | 1.5 | 0.3 |
| 1,2-DICHLOROETHANE | ND | 1.5 | 0.3 |
| 1,2-DICHLOROPROPANE | ND | 1.5 | 0.3 |
| 1,3,5-TRIMETHYLBENZENE | ND | 1.5 | 0.3 |
| 1,3-DICHLOROBENZENE | ND | 1.5 | 0.3 |
| 1,3-DICHLOROPROPANE | ND | 1.5 | 0.3 |
| 1,4-DICHLOROBENZENE | ND | 1.5 | 0.3 |
| 2,2-DICHLOROPROPANE | ND | 1.5 | 0.3 |
| 2-BUTANONE | ND | 1.5 | 0.3 |
| 2-CHLOROTOLUENE | ND | 1.5 | 0.3 |
| 2-HEXANONE | ND | 1.5 | 0.3 |
| 4-CHLOROTOLUENE | ND | 1.5 | 0.3 |
| 4-METHYL-2-PENTANONE | ND | 1.5 | 0.3 |
| ACETONE | ND | 1.5 | 0.3 |
| BENZENE | ND | 1.5 | 0.3 |
| BROMOBENZENE | ND | 1.5 | 0.3 |
| BROMOCHLOROMETHANE | ND | 1.5 | 0.3 |
| BROMODICHLOROMETHANE | ND | 1.5 | 0.3 |
| BROMOFORM | ND | 1.5 | 0.3 |
| BROMOMETHANE | ND | 1.5 | 0.3 |
| CARBON DISULFIDE | ND | 1.5 | 0.3 |
| CARBON TETRACHLORIDE | ND | 1.5 | 0.3 |
| CHLOROBENZENE | ND | 1.5 | 0.3 |
| CHLOROETHANE | ND | 1.5 | 0.3 |
| CHLOROFORM | ND | 1.5 | 0.3 |
| CHLOROMETHANE | ND | 1.5 | 0.3 |
| CIS-1,2-DICHLOROETHENE | ND | 1.5 | 0.3 |
| CIS-1,3-DICHLOROPROPENE | ND | 1.5 | 0.3 |
| DIBROMOCHLOROMETHANE | ND | 1.5 | 0.3 |
| DIBROMOMETHANE | ND | 1.5 | 0.3 |
| DICHLORODIFLUOROMETHANE | ND | 1.5 | 0.3 |
| ETHYLBENZENE | ND | 1.5 | 0.3 |
| HEXACHLOROBUTADIENE | ND | 1.5 | 0.3 |
| ISOPROPYL BENZENE | ND | 1.5 | 0.3 |
| M/P-XYLENES | ND | 1.5 | 0.3 |
| METHYLENE CHLORIDE | ND | 1.5 | 0.3 |
| N-BUTYLBENZENE | ND | 1.5 | 0.3 |
| N-PROPYLBENZENE | ND | 1.5 | 0.3 |
| NAPHTHALENE | ND | 1.5 | 0.3 |
| O-XYLENE | ND | 1.5 | 0.3 |
| P-ISOPROPYLTOLUENE | ND | 1.5 | 0.3 |
| SEC-BUTYLBENZENE | ND | 1.5 | 0.3 |
| STYRENE | ND | 1.5 | 0.3 |
| TERT-BUTYLBENZENE | ND | 1.5 | 0.3 |
| TETRACHLOROETHYLENE | ND | 1.5 | 0.3 |
| TOLUENE | ND | 1.5 | 0.3 |
| TRANS-1,2-DICHLOROETHENE | ND | 1.5 | 0.3 |
| TRANS-1,3-DICHLOROPROPENE | ND | 1.5 | 0.3 |
| TRICHLOROETHENE | ND | 1.5 | 0.3 |
| TRICHLOROFUOROMETHANE | ND | 1.5 | 0.3 |
| VINYL CHLORIDE | ND | 1.5 | 0.3 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|-----------------------|------------|----------|
| 1,2-DICHLOROETHANE-D4 | 117 | 62-139 |
| TOLUENE-D8 | 95 | 75-125 |
| BROMOFLUOROBENZENE | 90 | 75-125 |

R.L. : Reporting limit
 * : Out of QC
 E : Exceeded calibration range
 B : Found in associated method blank
 J : Value between R.L. and MDL
 D : Value from dilution analysis
 D.O. : Diluted out

76606

2006

SW 50308/82608
 VOLATILE ORGANICS BY GC/MS

| | |
|-------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 05/26/04 |
| Project : MFA, SITE 1, CTD 86 | Date Received: 05/28/04 |
| Batch No. : 04E247 | Date Extracted: 06/01/04 22:57 |
| Sample ID: 86-S1-012 | Date Analyzed: 06/01/04 22:57 |
| Lab Samp ID: E247-04 | Dilution Factor: 1 |
| Lab File ID: RF0013 | Matrix: WATER |
| Ext Btch ID: V003F01 | % Moisture: NA |
| Calib. Ref.: RDQ134 | Instrument ID: T-005 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---------------------------|-------------------|--------------|---------------|
| 1,1,1,2-TETRACHLOROETHANE | ND | 5 | 2 |
| 1,1,1-TRICHLOROETHANE | ND | 5 | 2 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 5 | 2 |
| 1,1,2-TRICHLOROETHANE | ND | 5 | 2 |
| 1,1-DICHLOROETHANE | ND | 5 | 2 |
| 1,1-DICHLOROETHENE | ND | 5 | 2 |
| 1,1-DICHLOROPROPENE | ND | 5 | 2 |
| 2,3-TRICHLOROBENZENE | ND | 5 | 2 |
| 2,3-TRICHLOROPROPANE | ND | 5 | 2 |
| 2,4-TRICHLOROBENZENE | ND | 5 | 2 |
| 2,4-TRIMETHYLBENZENE | ND | 5 | 2 |
| 2-DIBROMO-3-CHLOROPROPANE | ND | 5 | 2 |
| 2-DICHLOROBENZENE | ND | 5 | 2 |
| 2-DICHLOROETHANE | ND | 5 | 2 |
| 2-DICHLOROPROPANE | ND | 5 | 2 |
| 3,5-TRIMETHYLBENZENE | ND | 5 | 2 |
| 3-DICHLOROBENZENE | ND | 5 | 2 |
| 3-DICHLOROPROPANE | ND | 5 | 2 |
| 4-DICHLOROBENZENE | ND | 5 | 2 |
| 2,2-DICHLOROPROPANE | ND | 5 | 2 |
| 2-BUTANONE | ND | 10 | 2 |
| 2-CHLOROTOLUENE | ND | 10 | 2 |
| 2-HEXANONE | ND | 10 | 2 |
| 4-CHLOROTOLUENE | ND | 10 | 2 |
| 4-METHYL-2-PENTANONE | ND | 10 | 2 |
| ACETONE | ND | 10 | 2 |
| BENZENE | ND | 10 | 2 |
| BROMOBENZENE | ND | 10 | 2 |
| BROMOCHLOROMETHANE | ND | 10 | 2 |
| BROMODICHLOROMETHANE | ND | 10 | 2 |
| BROMOFORM | ND | 10 | 2 |
| BROMOMETHANE | ND | 10 | 2 |
| CARBON DISULFIDE | ND | 10 | 2 |
| CARBON TETRACHLORIDE | ND | 10 | 2 |
| CHLOROBENZENE | ND | 10 | 2 |
| CHLOROETHANE | ND | 10 | 2 |
| CHLOROFORM | ND | 10 | 2 |
| CHLOROMETHANE | ND | 10 | 2 |
| CIS-1,2-DICHLOROETHENE | ND | 10 | 2 |
| CIS-1,3-DICHLOROPROPENE | ND | 10 | 2 |
| DIBROMOCHLOROMETHANE | ND | 10 | 2 |
| DIBROMOMETHANE | ND | 10 | 2 |
| DICHLORODIFLUOROMETHANE | ND | 10 | 2 |
| ETHYLBENZENE | ND | 10 | 2 |
| HEXACHLOROBUTADIENE | ND | 10 | 2 |
| ISOPROPYL BENZENE | ND | 10 | 2 |
| M/P-XYLENES | ND | 10 | 2 |
| METHYLENE CHLORIDE | ND | 10 | 2 |
| N-BUTYLBENZENE | ND | 10 | 2 |
| N-PROPYLBENZENE | ND | 10 | 2 |
| NAPHTHALENE | ND | 10 | 2 |
| O-XYLENE | ND | 10 | 2 |
| P-ISOPROPYLTOLUENE | ND | 10 | 2 |
| SEC-BUTYLBENZENE | ND | 10 | 2 |
| STYRENE | ND | 10 | 2 |
| TERT-BUTYLBENZENE | ND | 10 | 2 |
| TETRACHLOROETHYLENE | ND | 10 | 2 |
| TOLUENE | ND | 10 | 2 |
| TRANS-1,2-DICHLOROETHENE | ND | 10 | 2 |
| TRANS-1,3-DICHLOROPROPENE | ND | 10 | 2 |
| TRICHLOROETHENE | ND | 10 | 2 |
| TRICHLOROFLUOROMETHANE | ND | 10 | 2 |
| VINYL CHLORIDE | ND | 10 | 2 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|-----------------------|------------|----------|
| 1,2-DICHLOROETHANE-D4 | 112 | 62-139 |
| TOLUENE-D8 | 101 | 75-136 |
| BROMOFLUOROBENZENE | 103 | 75-125 |

R.L. : Reporting limit
 * : Out of QC
 E : Exceeded calibration range
 B : Found in associated method blank
 J : Value between R.L. and MDL
 D : Value from dilution analysis
 D.O. : Diluted out

7/6/04

2007

SW 50308/82608
VOLATILE ORGANICS BY GC/MS

| | |
|------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 05/26/04 |
| Project : MFA SITE 1, CTO 86 | Date Received: 05/28/04 |
| Batch No. : 04E247 | Date Extracted: 06/01/04 23:36 |
| Sample ID: 86-S1-013 | Date Analyzed: 06/01/04 23:36 |
| Lab Smp ID: E247-05 | Dilution Factor: 1 |
| Lab File ID: RF0014 | Matrix : WATER |
| Ext Btch ID: V003F01 | % Moisture : NA |
| Calib. Ref.: RDQ134 | Instrument ID : T-005 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 1,1,1,2-TETRACHLOROETHANE | ND | 10 | 10 |
| 1,1,1-TRICHLOROETHANE | ND | 10 | 10 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 10 | 10 |
| 1,1,2-TRICHLOROETHANE | ND | 10 | 10 |
| 1,1-DICHLOROETHANE | ND | 10 | 10 |
| 1,2-DICHLOROETHANE | ND | 10 | 10 |
| 1,2-DICHLOROPROPENE | ND | 10 | 10 |
| 1,2,3-TRICHLOROBENZENE | ND | 10 | 10 |
| 1,2,3-TRICHLOROPROPANE | ND | 10 | 10 |
| 1,2,4-TRICHLOROBENZENE | ND | 10 | 10 |
| 1,2,4-TRIMETHYLBENZENE | ND | 10 | 10 |
| 1,2-DIBROMO-3-CHLOROPROPANE | ND | 10 | 10 |
| 1,2-DICHLOROBENZENE | ND | 10 | 10 |
| 1,2-DICHLOROETHANE | ND | 10 | 10 |
| 1,2-DICHLOROPROPANE | ND | 10 | 10 |
| 1,3,5-TRIMETHYLBENZENE | ND | 10 | 10 |
| 1,3-DICHLOROBENZENE | ND | 10 | 10 |
| 1,3-DICHLOROPROPANE | ND | 10 | 10 |
| 1,4-DICHLOROBENZENE | ND | 10 | 10 |
| 2,2-DICHLOROPROPANE | ND | 10 | 10 |
| 2-BUTANONE | ND | 10 | 10 |
| 2-CHLOROTOLUENE | ND | 10 | 10 |
| 2-HEXANONE | ND | 10 | 10 |
| 4-CHLOROTOLUENE | ND | 10 | 10 |
| 4-METHYL-2-PENTANONE | ND | 10 | 10 |
| ACETONE | ND | 10 | 10 |
| BENZENE | ND | 10 | 10 |
| BROMOBENZENE | ND | 10 | 10 |
| BROMOCHLOROMETHANE | ND | 10 | 10 |
| BROMODICHLOROMETHANE | ND | 10 | 10 |
| BROMOFORM | ND | 10 | 10 |
| BROMOMETHANE | ND | 10 | 10 |
| CARBON DISULFIDE | ND | 10 | 10 |
| CARBON TETRACHLORIDE | ND | 10 | 10 |
| CHLOROBENZENE | ND | 10 | 10 |
| CHLOROETHANE | ND | 10 | 10 |
| CHLOROFORM | ND | 10 | 10 |
| CHLOROMETHANE | ND | 10 | 10 |
| CIS-1,2-DICHLOROETHENE | ND | 10 | 10 |
| CIS-1,3-DICHLOROPROPENE | ND | 10 | 10 |
| DIBROMOCHLOROMETHANE | ND | 10 | 10 |
| DIBROMOMETHANE | ND | 10 | 10 |
| DICHLOROFLUOROMETHANE | ND | 10 | 10 |
| ETHYLBENZENE | ND | 10 | 10 |
| HEXACHLOROBUTADIENE | ND | 10 | 10 |
| ISOPROPYL BENZENE | ND | 10 | 10 |
| M/P-XYLENES | ND | 10 | 10 |
| METHYLENE CHLORIDE | ND | 10 | 10 |
| N-BUTYLBENZENE | ND | 10 | 10 |
| N-PROPYLBENZENE | ND | 10 | 10 |
| NAPHTHALENE | ND | 10 | 10 |
| O-XYLENE | ND | 10 | 10 |
| P-ISOPROPYLTOLUENE | ND | 10 | 10 |
| SEC-BUTYLBENZENE | ND | 10 | 10 |
| STYRENE | ND | 10 | 10 |
| TERT-BUTYLBENZENE | ND | 10 | 10 |
| TETRACHLOROETHYLENE | ND | 10 | 10 |
| TOLUENE | ND | 10 | 10 |
| TRANS-1,2-DICHLOROETHENE | ND | 10 | 10 |
| TRANS-1,3-DICHLOROPROPENE | ND | 10 | 10 |
| TRICHLOROETHENE | ND | 10 | 10 |
| TRICHLOROFLUOROMETHANE | ND | 10 | 10 |
| VINYL CHLORIDE | ND | 10 | 10 |
| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT | |
| 1,2-DICHLOROETHANE-D4 | 113 | 62-139 | |
| TOLUENE-D8 | 103 | 75-125 | |
| BROMOFLUOROBENZENE | 103 | 75-125 | |

R.L. : Reporting limit
 * : Out of QC
 E : Exceeded calibration range
 B : Found in associated method blank
 J : Value between R.L. and MDL
 D : Value from dilution analysis
 D.O. : Diluted out

7/6/04

2008

CASE NARRATIVE

CLIENT: TETRA TECH FW, INC.

PROJECT: MFA, SITE 1, CTO 86

SDG: 04E247

**SW 3520C/8270C
SEMI VOLATILE ORGANICS BY GC/MS**

Four (4) water samples were received on 05/28/04 for Semi Volatile Organic analysis by Method 3520C/8270C in accordance with USEPA SW846, 3rd ed.

1. Holding Time

Analytical holding time was met.

2. Tuning and Calibration

Tuning and calibration were carried out at 12-hour interval. All QC requirements were met.

3. Method Blank

Method blank was free of contamination at the reporting limit.

4. Surrogate Recovery

Recoveries were within QC limit.

5. Lab Control Sample/Lab Control Sample Duplicate

Recoveries were within QC limit.

6. Matrix Spike/Matrix Spike Duplicate

Sample E247-01 was spiked. All recoveries were within QC limit.

7. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criteria were met.

SW 3520C/8270C
SEMI VOLATILE ORGANICS BY GC/MS

| | |
|------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 05/26/04 |
| Project : ME4 SITE 1, CTO 86 | Date Received: 05/28/04 |
| Batch No.: 04E247 | Date Extracted: 06/01/04 17:00 |
| Sample ID: 86-S1-010 | Date Analyzed: 06/07/04 21:50 |
| Lab Samp ID: E247-01 | Dilution Factor: 94 |
| Lab File ID: RPK087 | Matrix: WATER |
| Ext Btch ID: SVF001W | % Moisture: NA |
| Calib. Ref.: REK313 | Instrument ID: T-052 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 2,4,6-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,6-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,6-DIMETHYLPHENOL | ND | 9.4 | 4.7 |
| 2,4-DINITROPHENOL | ND | 19 | 9.4 |
| 2,6-DINITROTOLUENE | ND | 19 | 9.4 |
| 2,4-DINITROTOLUENE | ND | 19 | 5.6 |
| 2-CHLORONAPHTHALENE | ND | 9.4 | 4.7 |
| 2-CHLOROPHENOL | ND | 9.4 | 4.7 |
| 2-METHYLNAPHTHALENE | ND | 9.4 | 4.7 |
| 2-METHYLPHENOL | ND | 19 | 5.6 |
| 2-NITROANILINE | ND | 9.4 | 4.7 |
| 2-NITROPHENOL | ND | 9.4 | 4.7 |
| 2,6-DICHLOROBENZIDINE | ND | 9.4 | 4.7 |
| 2-NITROANILIN | ND | 19 | 9.4 |
| 2,6-DINITRO-2-METHYLPHENOL | ND | 19 | 6.6 |
| 2-BROMOPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 2-CHLORO-3-METHYLPHENOL | ND | 9.4 | 4.7 |
| 2-CHLOROANILINE | ND | 9.4 | 4.7 |
| 2-CHLOROPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 2-METHYLPHENOL (1) | ND | 9.4 | 4.7 |
| 2-NITROANILINE | ND | 19 | 4.7 |
| 2-NITROPHENOL | ND | 9.4 | 4.7 |
| ACENAPHTHENE | ND | 9.4 | 4.7 |
| ACENAPHTHYLENE | ND | 9.4 | 4.7 |
| ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)PYRENE | ND | 9.4 | 4.7 |
| BENZO(B)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(K)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(G,H,I)PERYLENE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHOXY)METHANE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-CHLOROISOPROPYL)ETHER | ND | 19 | 9.4 |
| BIS(2-ETHYLHEXYL)PHTHALATE | ND | 9.4 | 4.7 |
| BUTYLBENZYLPHTHALATE | ND | 9.4 | 4.7 |
| CHRYSENE | ND | 9.4 | 4.7 |
| DI-N-BUTYLPHTHALATE | ND | 9.4 | 4.7 |
| DI-N-OCTYLPHTHALATE | ND | 9.4 | 4.7 |
| DIBENZO(A,H)ANTHRACENE | ND | 9.4 | 4.7 |
| DIBENZOFURAN | ND | 19 | 5.6 |
| DIETHYLPHTHALATE | ND | 19 | 4.7 |
| DIMETHYLPHTHALATE | ND | 9.4 | 4.7 |
| FLUORANTHENE | ND | 9.4 | 4.7 |
| FLUORENE | ND | 19 | 5.6 |
| HEXACHLOROBENZENE | ND | 9.4 | 4.7 |
| HEXACHLOROCYCLOPENTADIENE | ND | 9.4 | 4.7 |
| HEXACHLOROETHANE | ND | 9.4 | 4.7 |
| INDENO(1,2,3-CD)PYRENE | ND | 9.4 | 4.7 |
| ISOPHORENE | ND | 9.4 | 4.7 |
| N-NITROSO-DI-N-PROPYLAMINE | ND | 9.4 | 4.7 |
| N-NITROSO-DIPHENYLAMINE (2) | ND | 9.4 | 4.7 |
| NITROBENZENE | ND | 19 | 4.7 |
| PENTACHLOROPHENOL | ND | 19 | 5.6 |
| PHENANTHRENE | ND | 9.4 | 4.7 |
| PHENOL | ND | 9.4 | 4.7 |
| PYRENE | ND | 9.4 | 4.7 |
| 1,1'-BIPHENYL | ND | 9.4 | 4.7 |
| ACETOPHENONE | ND | 19 | 9.4 |
| ATRAZINE | ND | 9.4 | 4.7 |
| BENZALDEHYDE | ND | 9.4 | 4.7 |
| CAPROLACTAM | ND | 9.4 | 4.7 |
| CARBAZOLE | ND | 9.4 | 4.7 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| 2,4,6-TRIBROMOPHENOL | 85 | 25-134 |
| 2-FLUOROBIPHENYL | 48 | 42-126 |
| 2-FLUOROPHENOL | 41 | 42-126 |
| 3-NITROBENZENE-D5 | 50 | 25-134 |
| PHENOL-D5 | 80 | 42-126 |
| TERPHENYL-D14 | | |

RL: Reporting Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

7/6/04

3004

SW 3520C/8270C
 SEMI VOLATILE ORGANICS BY GC/MS

| | |
|-------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 05/26/04 |
| Project : MFA, SITE 1, CTO 86 | Date Received: 05/26/04 |
| Batch No. : 04E247 | Date Extracted: 06/01/04 17:00 |
| Sample ID: 86-S1-011 | Date Analyzed: 06/07/04 23:21 |
| Lab Samp ID: E247-03 | Dilution Factor: 94 |
| Lab File ID: RFK090 | Matrix: WATER |
| Ext Btch ID: SVF001W | % Moisture: NA |
| Calib. Ref.: REK313 | Instrument ID: T-052 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 2,4,5-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4,6-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DIMETHYLPHENOL | ND | 9.4 | 4.7 |
| 2,4-DINITROPHENOL | ND | 10 | 0.4 |
| 2,4-DINITROTOLUENE | ND | 10 | 0.4 |
| 2,6-DINITROTOLUENE | ND | 10 | 5.6 |
| 2-CHLORONAPHTHALENE | ND | 9.4 | 4.7 |
| 2-CHLOROPHENOL | ND | 9.4 | 4.7 |
| 2-METHYLNAPHTHALENE | ND | 9.4 | 4.7 |
| 2-METHYLPHENOL | ND | 9.4 | 4.7 |
| 2-NITROANILINE | ND | 10 | 5.6 |
| 2-NITROPHENOL | ND | 9.4 | 4.7 |
| 3,3'-DICHLOROBENZIDINE | ND | 9.4 | 4.7 |
| 3-NITROANILINE | ND | 9.4 | 4.7 |
| 4,6-DINITRO-2-METHYLPHENOL | ND | 10 | 6.6 |
| 4-BROMOPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-CHLORO-3-METHYLPHENOL | ND | 9.4 | 4.7 |
| 4-CHLOROANILINE | ND | 9.4 | 4.7 |
| 4-CHLOROPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-METHYLPHENOL (1) | ND | 9.4 | 4.7 |
| 4-NITROANILINE | ND | 10 | 4.7 |
| 4-NITROPHENOL | ND | 9.4 | 4.7 |
| ACENAPHTHENE | ND | 9.4 | 4.7 |
| ACENAPHTHYLENE | ND | 9.4 | 4.7 |
| ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)PYRENE | ND | 9.4 | 4.7 |
| BENZO(B)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(K)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(G,H,I)PERYLENE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHOXY)METHANE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-CHLOROISOPROPYL)ETHER | ND | 10 | 0.4 |
| BIS(2-ETHYLHEXYL)PHTHALATE | ND | 9.4 | 4.7 |
| BUTYLBENZYLPHTHALATE | ND | 9.4 | 4.7 |
| CHRYSENE | ND | 9.4 | 4.7 |
| D1-N-BUTYLPHTHALATE | ND | 9.4 | 4.7 |
| D1-N-OCTYLPHTHALATE | ND | 9.4 | 4.7 |
| DIBENZO(A,H)ANTHRACENE | ND | 9.4 | 4.7 |
| DIBENZOFURAN | ND | 10 | 5.6 |
| DIETHYLPHTHALATE | ND | 10 | 4.7 |
| DIMETHYLPHTHALATE | ND | 9.4 | 4.7 |
| FLUORANTHENE | ND | 9.4 | 4.7 |
| FLUORENE | ND | 10 | 5.6 |
| HEXACHLORO BENZENE | ND | 9.4 | 4.7 |
| HEXACHLOROCYCLOPENTADIENE | ND | 9.4 | 4.7 |
| HEXACHLOROETHANE | ND | 9.4 | 4.7 |
| INDENO(1,2,3-CD)PYRENE | ND | 9.4 | 4.7 |
| ISOPHORENE | ND | 9.4 | 4.7 |
| N-NITROSO-D1-N-PROPYLAMINE | ND | 9.4 | 4.7 |
| N-NITROSO-DIPHENYLAMINE (2) | ND | 9.4 | 4.7 |
| NITROBENZENE | ND | 10 | 0.4 |
| PENTACHLOROPHENOL | ND | 10 | 5.6 |
| PHENANTHRENE | ND | 9.4 | 4.7 |
| PHENOL | ND | 9.4 | 4.7 |
| PYRENE | ND | 9.4 | 4.7 |
| 1,1'-BIPHENYL | ND | 9.4 | 2.3 |
| ACETOPHENONE | ND | 10 | 9.4 |
| ATRAZINE | ND | 9.4 | 4.7 |
| BENZALDEHYDE | ND | 9.4 | 4.7 |
| CAPROLACTAM | ND | 9.4 | 4.7 |
| CARBAZOLE | ND | 9.4 | 4.7 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| 2,4,6-TRIBROMOPHENOL | 94 | 25-134 |
| 2-FLUOROBIPHENYL | 74 | 43-125 |
| 2-FLUOROPHENOL | 61 | 25-125 |
| NITROBENZENE-D5 | 75 | 25-125 |
| PHENOL-D5 | 70 | 25-125 |
| TERPHENYL-D14 | 88 | 42-126 |

RL: Reporting Limit
 (1): Cannot be separated from 3-Methylphenol
 (2): Cannot be separated from Diphenylamine

7/6/04

3005

SW 3520C/8270C
 SEMI VOLATILE ORGANICS BY GC/MS

| | |
|------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 05/26/04 |
| Project : MFA SITE 1, CTO 86 | Date Received: 05/28/04 |
| Batch No. : 042247 | Date Extracted: 06/01/04 17:00 |
| Sample ID: 86-S1-012 | Date Analyzed: 06/07/04 23:51 |
| Lab Samp ID: E247-04 | Dilution Factor: .94 |
| Lab File ID: RFK091 | Matrix : WATER |
| Ext Btch ID: SVF001W | % Moisture : NA |
| Calib. Ref.: REK313 | Instrument ID : T-052 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 2,4,5-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4,6-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DICHLOROPHENOL | ND | 9.4 | 4.7 |
| 4-METHYLPHENOL | ND | 9.4 | 4.7 |
| 4-NITROPHENOL | ND | 10 | 9.4 |
| 4-NITROTOLUENE | ND | 10 | 9.4 |
| 2,6-DINITROTOLUENE | ND | 10 | 5.6 |
| 2-CHLORONAPHTHALENE | ND | 9.4 | 4.7 |
| 2-CHLOROPHENOL | ND | 9.4 | 4.7 |
| 2-METHYLNAPHTHALENE | ND | 9.4 | 4.7 |
| 2-METHYLPHENOL | ND | 10 | 5.6 |
| 2-NITROANILINE | ND | 9.4 | 4.7 |
| 2-NITROPHENOL | ND | 9.4 | 4.7 |
| 3,3'-DICHLOROBENZIDINE | ND | 9.4 | 4.7 |
| 3-NITROANILINE | ND | 10 | 9.4 |
| 4,6-DINITRO-2-METHYLPHENOL | ND | 10 | 6.6 |
| 4-BROMOPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-CHLORO-3-METHYLPHENOL | ND | 9.4 | 4.7 |
| 4-CHLOROANILINE | ND | 9.4 | 4.7 |
| 4-CHLOROPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-METHYLPHENOL (1) | ND | 9.4 | 4.7 |
| 4-NITROANILINE | ND | 10 | 4.7 |
| 4-NITROPHENOL | ND | 10 | 4.7 |
| ACENAPHTHENE | ND | 9.4 | 4.7 |
| ACENAPHTHYLENE | ND | 9.4 | 4.7 |
| ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)PYRENE | ND | 9.4 | 4.7 |
| BENZO(B)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(K)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(G,H,I)PERYLENE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHOXY)METHANE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-CHLOROISOPROPYL)ETHER | ND | 10 | 5.6 |
| BIS(2-ETHYLHEXYL)PHTHALATE | ND | 9.4 | 4.7 |
| BUTYLBENZYLPHTHALATE | ND | 9.4 | 4.7 |
| CHRYSENE | ND | 9.4 | 4.7 |
| DI-N-BUTYLPHTHALATE | ND | 9.4 | 4.7 |
| DI-N-OCTYLPHTHALATE | ND | 9.4 | 4.7 |
| DIBENZO(A,H)ANTHRACENE | ND | 9.4 | 4.7 |
| DIBENZOFURAN | ND | 10 | 5.6 |
| DIETHYLPHTHALATE | ND | 10 | 4.7 |
| DIMETHYLPHTHALATE | ND | 9.4 | 4.7 |
| FLUORANTHENE | ND | 9.4 | 4.7 |
| FLUORENE | ND | 10 | 5.6 |
| HEXACHLOROBENZENE | ND | 9.4 | 4.7 |
| HEXACHLOROCYCLOPENTADIENE | ND | 9.4 | 4.7 |
| HEXACHLOROETHANE | ND | 9.4 | 4.7 |
| INDENO(1,2,3-CD)PYRENE | ND | 9.4 | 4.7 |
| ISOPHORONE | ND | 9.4 | 4.7 |
| N-NITROSO-DI-N-PROPYLAMINE | ND | 9.4 | 4.7 |
| N-NITROSDIPHENYLAMINE (2) | ND | 9.4 | 4.7 |
| NITROBENZENE | ND | 10 | 9.4 |
| PENTACHLOROPHENOL | ND | 10 | 5.6 |
| PHENANTHRENE | ND | 9.4 | 4.7 |
| PHENOL | ND | 9.4 | 4.7 |
| PYRENE | ND | 9.4 | 4.7 |
| 1,1'-BIPHENYL | ND | 9.4 | 4.7 |
| ACETOPHENONE | ND | 10 | 6.6 |
| ATRAZINE | ND | 9.4 | 4.7 |
| BENZALDEHYDE | ND | 9.4 | 4.7 |
| CAPROLACTAM | ND | 9.4 | 4.7 |
| CARBAZOLE | ND | 9.4 | 4.7 |
| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT | |
| 2,4,6-TRIBROMOPHENOL | 86 | 25-134 | |
| 2-FLUOROBIPHENYL | 66 | 43-125 | |
| 2-FLUOROPHENOL | 54 | 25-125 | |
| NITROBENZENE-D5 | 65 | 26-125 | |
| PHENOL-D5 | 66 | 26-125 | |
| TERPHENYL-D14 | 79 | 42-126 | |

RL: Reporting Limit
 (1): Cannot be separated from 3-Methylphenol
 (2): Cannot be separated from Diphenylamine

7/6/04

3006

SW 3520C/8270C
 SEMI VOLATILE ORGANICS BY GC/MS

| | |
|-------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 05/26/04 |
| Project : MFA, SITE 1, CTO 86 | Date Received: 05/28/04 |
| Batch No. : 04E247 | Date Extracted: 06/01/04 17:00 |
| Sample ID: 86-S1-013 | Date Analyzed: 06/08/04 00:21 |
| Lab Samp ID: E247-05 | Dilution Factor: .94 |
| Lab File ID: RFK092 | Matrix : WATER |
| Ext Btch ID: SVF001W | % Moisture : NA |
| Calib. Ref.: REK313 | Instrument ID : T-052 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 2,4,6-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4,6-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,6-DIMETHYLPHENOL | ND | 9.4 | 4.7 |
| 4-DINITROPHENOL | ND | 19 | 9.4 |
| 4-DINITROTOLUENE | ND | 19 | 9.4 |
| 6-DINITROTOLUENE | ND | 19 | 9.4 |
| 2-CHLORONAPHTHALENE | ND | 9.4 | 4.7 |
| 1-CHLOROPHENOL | ND | 9.4 | 4.7 |
| 1-METHYLNAPHTHALENE | ND | 9.4 | 4.7 |
| 1-METHYLPHENOL | ND | 19 | 9.4 |
| 1-NITROANILINE | ND | 9.4 | 4.7 |
| 1-NITROPHENOL | ND | 9.4 | 4.7 |
| 2,6-DICHLOROBENZIDINE | ND | 9.4 | 4.7 |
| 1-NITROANILINE | ND | 19 | 9.4 |
| 4,6-DINITRO-2-METHYLPHENOL | ND | 19 | 9.4 |
| 4-BROMOPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-CHLORO-3-METHYLPHENOL | ND | 9.4 | 4.7 |
| 4-CHLORODANILINE | ND | 9.4 | 4.7 |
| 4-CHLOROPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-METHYLPHENOL (1) | ND | 9.4 | 4.7 |
| 4-NITROANILINE | ND | 19 | 9.4 |
| 4-NITROPHENOL | ND | 9.4 | 4.7 |
| ACENAPHTHENE | ND | 9.4 | 4.7 |
| ACENAPHTHYLENE | ND | 9.4 | 4.7 |
| ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)PYRENE | ND | 9.4 | 4.7 |
| BENZO(B)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(K)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(G,H,I)PERYLENE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHOXY)METHANE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-CHLOROISOPROPYL)ETHER | ND | 19 | 9.4 |
| BIS(2-ETHYLHEXYL)PHTHALATE | ND | 9.4 | 4.7 |
| BUTYLBENZYLPHTHALATE | ND | 9.4 | 4.7 |
| CHRYSENE | ND | 9.4 | 4.7 |
| DI-N-BUTYLPHTHALATE | ND | 9.4 | 4.7 |
| DI-N-OCTYLPHTHALATE | ND | 9.4 | 4.7 |
| DIBENZO(A,H)ANTHRACENE | ND | 9.4 | 4.7 |
| DIBENZOFURAN | ND | 9.4 | 4.7 |
| DIETHYLPHTHALATE | ND | 19 | 9.4 |
| DIMETHYLPHTHALATE | ND | 19 | 9.4 |
| FLUORANTHENE | ND | 9.4 | 4.7 |
| FLUORENE | ND | 19 | 9.4 |
| HEXACHLOROBENZENE | ND | 9.4 | 4.7 |
| HEXACHLOROCYCLOPENTADIENE | ND | 9.4 | 4.7 |
| HEXACHLOROETHANE | ND | 9.4 | 4.7 |
| INDENO(1,2,3-CD)PYRENE | ND | 9.4 | 4.7 |
| ISOPHORONE | ND | 9.4 | 4.7 |
| N-NITROSO-DI-N-PROPYLAMINE | ND | 9.4 | 4.7 |
| N-NITROSDIPHENYLAMINE (2) | ND | 9.4 | 4.7 |
| NITROBENZENE | ND | 19 | 9.4 |
| PENTACHLOROPHENOL | ND | 19 | 9.4 |
| PHENANTHRENE | ND | 9.4 | 4.7 |
| PHENOL | ND | 9.4 | 4.7 |
| PYRENE | ND | 9.4 | 4.7 |
| 1,1'-BIPHENYL | ND | 9.4 | 4.7 |
| ACETOPHENONE | ND | 19 | 9.4 |
| ATRAZINE | ND | 9.4 | 4.7 |
| BENZALDEHYDE | ND | 9.4 | 4.7 |
| CAPROLACTAM | ND | 9.4 | 4.7 |
| CARBAZOLE | ND | 9.4 | 4.7 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| 2,4,6-TRIBROMOPHENOL | 69 | 25-134 |
| 2-FLUOROBIPHENYL | 45 | 45-125 |
| 2-FLUOROPHENOL | 36 | 25-125 |
| NITROBENZENE-D5 | 40 | 25-125 |
| PHENOL-D5 | 26 | 25-125 |
| TERPHEYL-D14 | 70 | 42-126 |

RL: Reporting Limit
 (1): Cannot be separated from 3-Methylphenol
 (2): Cannot be separated from Diphenylamine

7/6/04

3007

CASE NARRATIVE

CLIENT: TETRA TECH FW, INC.
PROJECT: MFA, SITE 1, CTO 86
SDG: 04E247

**SW3520C/8081A
PESTICIDES**

Four (4) water samples were received on 05/28/04 for Pesticides analysis by Method 3520C/8081A in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW846, 3rd ed.

1. Holding Time

Analytical holding time was met.

2. Instrument Performance and Calibration

Initial calibration was at five-point for Pesticides, all RSDs were within 20%. All continue calibrations were analyzed at 12-hour interval and mean recoveries were within 85-115%. Endrin and DDT breakdown were within QC limits.

3. Method Blank

Method blank was free of contamination at the reporting limit.

4. Surrogate Recovery

Recoveries were within QC limit.

5. Lab Control Sample/Lab Control Sample Duplicate

All recoveries were within QC limits.

6. Matrix Spike/Matrix Spike Duplicate

Sample E247-01 was spiked. All recoveries were within QC limit.

7. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criteria were met.

SW3520C/8081A
 PESTICIDES

| | |
|-------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 05/26/04 |
| Project : MFA, SITE 1, CTO 86 | Date Received: 05/28/04 |
| Batch No. : 04E247 | Date Extracted: 06/01/04 16:30 |
| Sample ID: 86-S1-010 | Date Analyzed: 06/03/04 14:50 |
| Lab Samp ID: E247-01 | Dilution Factor: .94 |
| Lab File ID: SF02063A | Matrix : WATER |
| Ext Btch ID: CPF001W | % Moisture : NA |
| Calib. Ref.: SF02056A | Instrument ID : GCT008 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---------------------|-------------------|--------------|---------------|
| ALPHA-BHC | (ND) ND | .047 | .0094 |
| GAMMA-BHC (LINDANE) | (ND) ND | .047 | .0094 |
| BETA-BHC | (ND) .024J | .047 | .0094 |
| HEPTACHLOR | (ND) ND | .047 | .0094 |
| DELTA-BHC | (ND) ND 1.3 | .047 | .0094 |
| ALDRIN | (ND) ND | .047 | .0094 |
| HEPTACHLOR EPOXIDE | (ND) ND | .047 | .0094 |
| GAMMA-CHLORDANE | .036J (ND) | .047 | .0094 |
| ALPHA-CHLORDANE | (ND) ND | .047 | .0094 |
| ENDOSULFAN I | (ND) ND | .047 | .028 |
| 4,4'-DDE | (ND) ND | .094 | .028 |
| DIELDRIN | (ND) ND | .19 | .094 |
| ENDRIN | (ND) ND | .094 | .019 |
| 4,4'-DDD | (ND) ND | .094 | .028 |
| ENDOSULFAN II | (ND) ND | .094 | .019 |
| 4,4'-DDT | (ND) ND | .094 | .019 |
| ENDRIN ALDEHYDE | (ND) ND | .094 | .019 |
| ENDOSULFAN SULFATE | (ND) ND | .094 | .019 |
| ENDRIN KETONE | (ND) ND | .094 | .019 |
| METHOXYCHLOR | (ND) ND | .47 | .094 |
| TOXAPHENE | (ND) ND | 2.8 | 1.2 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| TETRACHLORO-M-XYLENE | 47 (49) | 30-130 |
| DECACHLOROBIPHENYL | (83) 66 | 30-130 |

RL : Reporting limit
 Left of | is related to first column ; Right of | related to second column
 () included the reported column

7/6/04

5004

SW3520C/8081A
PESTICIDES

| | |
|-------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 05/26/04 |
| Project : MFA, SITE 1, CTO 86 | Date Received: 05/28/04 |
| Batch No. : 04E247 | Date Extracted: 06/01/04 16:30 |
| Sample ID: 86-S1-011 | Date Analyzed: 06/03/04 09:21 |
| Lab Samp ID: E247-03 | Dilution Factor: .94 |
| Lab File ID: SF02050A | Matrix : WATER |
| Ext Btch ID: CPF001W | % Moisture : NA |
| Calib. Ref.: SF02030A | Instrument ID : GCT008 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---------------------|-------------------|--------------|---------------|
| ALPHA-BHC | (ND) ND | .047 | .0094 |
| GAMMA-BHC (LINDANE) | (ND) ND | .047 | .0094 |
| BETA-BHC | (ND) .048 | .047 | .0094 |
| HEPTACHLOR | .02J (ND) | .047 | .0094 |
| DELTA-BHC | (ND) ND | .047 | .0094 |
| ALDRIN | (ND) ND | .047 | .0094 |
| HEPTACHLOR EPOXIDE | (ND) ND | .047 | .0094 |
| GAMMA-CHLORDANE | .019J (ND) | .047 | .0094 |
| ALPHA-CHLORDANE | (ND) ND | .047 | .0094 |
| ENDOSULFAN I | (ND) ND | .047 | .028 |
| 4,4'-DDE | (ND) ND <i>WJ</i> | .094 | .028 |
| DIELDRIN | (ND) ND | .19 | .094 |
| ENDRIN | (ND) ND | .094 | .019 |
| 4,4'-DDD | (ND) ND <i>WJ</i> | .094 | .028 |
| ENDOSULFAN II | (ND) ND | .094 | .019 |
| 4,4'-DDT | (ND) ND | .094 | .019 |
| ENDRIN ALDEHYDE | (ND) ND | .094 | .019 |
| ENDOSULFAN SULFATE | (ND) ND | .094 | .019 |
| ENDRIN KETONE | (ND) ND | .094 | .019 |
| METHOXYCHLOR | (ND) ND <i>WJ</i> | .47 | .094 |
| TOXAPHENE | (ND) ND | 2.8 | 1.2 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| TETRACHLORO-M-XYLENE | 62 (65) | 30-130 |
| DECACHLOROBIPHENYL | (72) 64 | 30-130 |

RL : Reporting limit
Left of | is related to first column ; Right of | related to second column
() included the reported column

7/6/04

5005

SW3520C/8081A
PESTICIDES

| | |
|-------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 05/26/04 |
| Project : MFA, SITE 1, CTO 86 | Date Received: 05/28/04 |
| Batch No. : 04E247 | Date Extracted: 06/01/04 16:30 |
| Sample ID: 86-S1-012 | Date Analyzed: 06/03/04 09:46 |
| Lab Samp ID: E247-04 | Dilution Factor: .94 |
| Lab File ID: SF02051A | Matrix : WATER |
| Ext Btch ID: CPF001W | % Moisture : NA |
| Calib. Ref.: SF02030A | Instrument ID : GCT008 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---------------------|-------------------|--------------|---------------|
| ALPHA-BHC | (ND) ND | .047 | .0094 |
| GAMMA-BHC (LINDANE) | (ND) ND | .047 | .0094 |
| BETA-BHC | (ND) .071 | .047 | .0094 |
| HEPTACHLOR | (ND) ND | .047 | .0094 |
| DELTA-BHC | (ND) ND | .047 | .0094 |
| ALDRIN | (ND) ND | .047 | .0094 |
| HEPTACHLOR EPOXIDE | (ND) ND | .047 | .0094 |
| GAMMA-CHLORDANE | (ND) ND | .047 | .0094 |
| ALPHA-CHLORDANE | (ND) ND | .047 | .0094 |
| ENDOSULFAN I | (ND) ND | .047 | .028 |
| 4,4'-DDE | (ND) ND <i>US</i> | .094 | .028 |
| DIELDRIN | (ND) ND | .19 | .094 |
| ENDRIN | (ND) ND | .094 | .019 |
| 4,4'-DDD | (ND) ND <i>US</i> | .094 | .028 |
| ENDOSULFAN II | (ND) ND | .094 | .019 |
| 4,4'-DDT | (ND) ND | .094 | .019 |
| ENDRIN ALDEHYDE | (ND) ND | .094 | .019 |
| ENDOSULFAN SULFATE | (ND) ND | .094 | .019 |
| ENDRIN KETONE | (ND) ND | .094 | .019 |
| METHOXYCHLOR | (ND) ND <i>US</i> | .47 | .094 |
| TOXAPHENE | (ND) ND | 2.8 | 1.2 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| TETRACHLORO-M-XYLENE | (82) 81 | 30-130 |
| DECACHLOROBIPHENYL | (70) 64 | 30-130 |

RL : Reporting limit
Left of | is related to first column ; Right of | related to second column
() included the reported column

7/6/04

SW3520C/8081A
PESTICIDES

| | |
|-------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 05/26/04 |
| Project : MFA, SITE 1, CTO 86 | Date Received: 05/28/04 |
| Batch No. : 04E247 | Date Extracted: 06/01/04 16:30 |
| Sample ID: 86-S1-013 | Date Analyzed: 06/03/04 10:12 |
| Lab Samp ID: E247-05 | Dilution Factor: .94 |
| Lab File ID: SF02052A | Matrix : WATER |
| Ext Btch ID: CPF001W | % Moisture : NA |
| Calib. Ref.: SF02030A | Instrument ID : GCT008 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---------------------|-------------------|--------------|---------------|
| ALPHA-BHC | (ND) ND | .047 | .0094 |
| GAMMA-BHC (LINDANE) | (ND) ND | .047 | .0094 |
| BETA-BHC | (ND) .055 | .047 | .0094 |
| HEPTACHLOR | (ND) ND | .047 | .0094 |
| DELTA-BHC | (ND) ND | .047 | .0094 |
| ALDRIN | (ND) ND | .047 | .0094 |
| HEPTACHLOR EPOXIDE | (ND) ND | .047 | .0094 |
| GAMMA-CHLORDANE | .035J (ND) | .047 | .0094 |
| ALPHA-CHLORDANE | (ND) ND | .047 | .0094 |
| ENDOSULFAN I | (ND) ND | .047 | .028 |
| 4,4'-DDE | (ND) ND <i>WJ</i> | .094 | .028 |
| DIELDRIN | (ND) ND | .19 | .094 |
| ENDRIN | (ND) ND | .094 | .019 |
| 4,4'-DDD | (ND) ND <i>WJ</i> | .094 | .028 |
| ENDOSULFAN II | (ND) ND | .094 | .019 |
| 4,4'-DDT | (ND) ND | .094 | .019 |
| ENDRIN ALDEHYDE | (ND) ND | .094 | .019 |
| ENDOSULFAN SULFATE | (ND) ND | .094 | .019 |
| ENDRIN KETONE | (ND) ND | .094 | .019 |
| METHOXYCHLOR | (ND) ND <i>WJ</i> | .47 | .094 |
| TOXAPHENE | (ND) ND | 2.8 | 1.2 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| TETRACHLORO-M-XYLENE | 86 (90) | 30-130 |
| DECACHLOROBIPHENYL | (70) 64 | 30-130 |

RL : Reporting limit
Left of | is related to first column ; Right of | related to second column
() included the reported column

7/6/04
5007

CASE NARRATIVE**CLIENT: TETRA TECH FW, INC.****PROJECT: MFA, SITE 1, CTO 86****SDG: 04E247****SW3520C/8082
PCBs**

Four (4) water samples were received on 05/28/04 for PCBs analysis by Method 3520C/8082 in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW846, 3rd ed.

1. Holding Time

Analytical holding time was met.

2. Instrument Performance and Calibration

Initial calibration was five-point for PCB-1016 and PCB-1260, all RSDs were within 20%. All continue calibrations were analyzed at 12-hour interval and all recoveries were within 85-115%.

3. Method Blank

Method blank was free of contamination at the reporting limit.

4. Surrogate Recovery

Recoveries were within QC limit.

5. Lab Control Sample/Lab Control Sample Duplicate

All recoveries were within QC limits.

6. Matrix Spike/Matrix Spike Duplicate

Sample E247-01 was spiked. All recoveries were within QC limit.

7. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criteria were met.

SW3520C/8082
 PCBs

| | |
|-------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 05/26/04 |
| Project : MFA, SITE 1, CTO 86 | Date Received: 05/28/04 |
| Batch No. : 04E247 | Date Extracted: 06/01/04 16:30 |
| Sample ID: 86-S1-010 | Date Analyzed: 06/03/04 14:50 |
| Lab Samp ID: E247-01 | Dilution Factor: .94 |
| Lab File ID: SF02063A | Matrix : WATER |
| Ext Btch ID: CPF001W | % Moisture : NA |
| Calib. Ref.: SF02059A | Instrument ID : GCT008 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | NDL (ug/L) |
|------------|-------------------|--------------|---------------|
| PCB-1016 | (ND) ND | .94 | .24 .24 |
| PCB-1221 | (ND) ND | .94 | .24 .24 |
| PCB-1232 | (ND) ND | .94 | .24 .24 |
| PCB-1242 | (ND) ND | .94 | .24 .24 |
| PCB-1248 | (ND) ND | .94 | .24 .24 |
| PCB-1254 | (ND) ND | .94 | .24 .24 |
| PCB-1260 | (ND) ND | .94 | .24 .24 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| TETRACHLORO-M-XYLENE | (44) 46 | 30-130 |
| DECACHLOROBIPHENYL | (81) 78 | 30-130 |

RL: Reporting Limit
 Left of | is related to first column ; Right of | related to second column
 () included the reported column
 * Out side of QC Limit

7/6/04

5145

SN3520C/8082
 PCBs

| | |
|-------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 05/26/04 |
| Project : MFA, SITE 1, CTO 86 | Date Received: 05/28/04 |
| Batch No. : 04E247 | Date Extracted: 06/01/04 16:30 |
| Sample ID: 86-S1-011 | Date Analyzed: 06/03/04 09:21 |
| Lab Samp ID: E247-03 | Dilution Factor: .94 |
| Lab File ID: SF02050A | Matrix : WATER |
| Ext Btch ID: CPF001W | % Moisture : NA |
| Calib. Ref.: SF02033A | Instrument ID : GCT008 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|------------|-------------------|--------------|---------------|
| PCB-1016 | (ND) ND | .94 | .24 .24 |
| PCB-1221 | (ND) ND | .94 | .24 .24 |
| PCB-1232 | (ND) ND | .94 | .24 .24 |
| PCB-1242 | (ND) ND | .94 | .24 .24 |
| PCB-1248 | (ND) ND | .94 | .24 .24 |
| PCB-1254 | (ND) ND | .94 | .24 .24 |
| PCB-1260 | (ND) ND | .94 | .24 .24 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| TETRACHLORO-M-XYLENE | (58) 60 | 30-130 |
| DECAHLOBIPHENYL | (77) 69 | 30-130 |

RL: Reporting Limit
 Left of | is related to first column ; Right of | related to second column
 () included the reported column
 * Out side of QC Limit

7/6/04

5146

SW3520C/8082
PCBs

| | |
|-------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 05/26/04 |
| Project : MFA, SITE 1, CTO 86 | Date Received: 05/28/04 |
| Batch No. : 04E247 | Date Extracted: 06/01/04 16:30 |
| Sample ID: 86-S1-012 | Date Analyzed: 06/03/04 09:46 |
| Lab Samp ID: E247-04 | Dilution Factor: .94 |
| Lab File ID: SF02051A | Matrix : WATER |
| Ext Btch ID: CPF001W | % Moisture : NA |
| Calib. Ref.: SF02033A | Instrument ID : GCT008 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|------------|-------------------|--------------|---------------|
| PCB-1016 | (ND) ND | .94 | .24 .24 |
| PCB-1221 | (ND) ND | .94 | .24 .24 |
| PCB-1232 | (ND) ND | .94 | .24 .24 |
| PCB-1242 | (ND) ND | .94 | .24 .24 |
| PCB-1248 | (ND) ND | .94 | .24 .24 |
| PCB-1254 | (ND) ND | .94 | .24 .24 |
| PCB-1260 | (ND) ND | .94 | .24 .24 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| TETRACHLORO-M-XYLENE | (76) 76 | 30-130 |
| DECACHLOROBIPHENYL | (75) 69 | 30-130 |

RL: Reporting Limit
 Left of | is related to first column ; Right of | related to second column
 () included the reported column
 * Out side of QC Limit

7/6/04

5147

SW3520C/8082
PCBs

| | |
|-------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 05/26/04 |
| Project : MFA, SITE 1, CTO 86 | Date Received: 05/28/04 |
| Batch No. : 04E247 | Date Extracted: 06/01/04 16:30 |
| Sample ID: 86-S1-013 | Date Analyzed: 06/03/04 10:12 |
| Lab Samp ID: E247-05 | Dilution Factor: .94 |
| Lab File ID: SF02052A | Matrix : WATER |
| Ext Btch ID: CPF001W | % Moisture : NA |
| Calib. Ref.: SF02033A | Instrument ID : GCT008 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|------------|-------------------|--------------|---------------|
| PCB-1016 | (ND) ND | .94 | .24 .24 |
| PCB-1221 | (ND) ND | .94 | .24 .24 |
| PCB-1232 | (ND) ND | .94 | .24 .24 |
| PCB-1242 | (ND) ND | .94 | .24 .24 |
| PCB-1248 | (ND) ND | .94 | .24 .24 |
| PCB-1254 | (ND) ND | .94 | .24 .24 |
| PCB-1260 | (ND) ND | .94 | .24 .24 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| TETRACHLORO-M-XYLENE | (80) 84 | 30-130 |
| DECAHCHLOROBIPHENYL | (76) 69 | 30-130 |

RL: Reporting Limit
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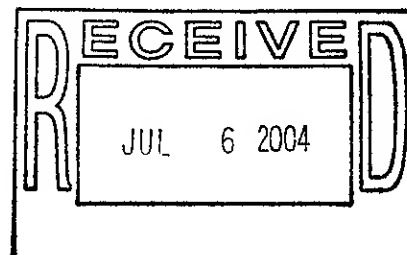
5148

COPY

July 6, 2004

Service Request No: K2403968

Jenny Touch
EMAX Laboratories, Inc.
1835 W. 205th St.
Torrance, CA 90501



RE: MFA, Site 1, CTO 86 / 04E247

Dear Jenny:

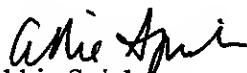
Enclosed are the results of the sample(s) submitted to our laboratory on May 29, 2004. For your reference, these analyses have been assigned our service request number K2403968.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAC standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please call if you have any questions. My extension is 3281.

Respectfully submitted,

Columbia Analytical Services, Inc.


Abbie Spielman
Project Chemist

AS/jeb

Page 1 of 200

B

COLUMBIA ANALYTICAL SERVICES, INC.

Client: EMAX Laboratories
Project: MFA Site 1, CTO 86
Sample Matrix: Water

Service Request No.: K2403968
Date Received: 5/29/04

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of Columbia Analytical Services, Inc. (CAS). This report contains analytical results for samples designated for Tier III validation deliverables including summary forms and all of the associated raw data for each of the analyses. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

Four water samples were received for analysis at Columbia Analytical Services on 5/29/04. No discrepancies were noted upon initial sample inspection. All samples were received in good condition and consistent with the accompanying chain of custody forms. The samples were stored in a refrigerator at 4°C upon receipt at the laboratory.

Due to the nature of the sample matrices and additional project information received from the client on 6/3-4/04, additional analyses were subsequently authorized via email on 6/11/04. Other analyses were authorized via email on 6/16/04. Copies of all emails are included in the chain of custody section as supporting documentation.

Dissolved Metals

Sample Notes and Discussion:

Due to the high salinity of the water samples, CAS was not able to analyze the samples as initially requested by EPA 200.8 without additional pretreatment. As discussed with the client, the samples were analyzed using a combination of analytical techniques to meet a variety of project DQO requirements.

In the first approach, the samples were analyzed by ICP per EPA method 6010 (for Al, Sb, Ba, Be, Cd, Cr, Pb, Ni, Ag, Tl, V, Zn) and by GFAA for Arsenic (EPA method 7060A), Copper (EPA method 7211) and Lead (EPA method 7211).

After further discussion with the client, a second approach was designed to achieve lower method reporting limits in the highly saline sample matrix. All samples were pretreated by reductive precipitation using EPA method 1640 and analyzed by ICP/MS EPA method 200.8 for As, Sb, Ba, Be, Cd, Cr, Co, Cu, Pb, Ni (quantified using isotope dilution), Ag, and Tl. In addition, Selenium was analyzed by hydride EPA method 7742.

A separate data package has been prepared for each analytical approach described above. Please note that samples were analyzed for Aluminum, Vanadium and Zinc only one time using ICP EPA method 6010B. However, results for these analytes have been included in both metals data packages.

Matrix Spike Recovery Exceptions:

The matrix spike recovery of Copper by EPA method 7211 for sample 86-SI-010 was outside the CAS control criteria because of matrix interference. The sample contained elevated levels of Total Dissolved Solids (TDS), which caused chemical and physical interference related to atomization and subsequent atomic absorption. The associated QA/QC results (i.e. LCS, CCV, etc.) indicate the analysis was in control. The low recovery suggests a similar low bias in the unspiked sample as well. No further corrective action was appropriate.

Approved by

Ami Sprielsma

Date

7/6/04

00005

The matrix spike recovery of Selenium by EPA method 7740 for sample 86-S1-010 is not applicable. The analysis of this sample required a dilution such that the added spike concentration was diluted below the Method Reporting Limit (MRL). No further corrective action was taken.

The matrix spike recovery of Arsenic by EPA method 200.8 for sample 86-S1-010 was outside control criteria. Recoveries in the Laboratory Control Samples (LCS) were acceptable, which indicates the analytical batch was in control. The matrix spike outlier suggests a potential low bias in this matrix. No further corrective action was appropriate.

No other anomalies associated with the analysis of these samples were observed.

Approved by

Ami Patel

Date

7/6/07

00006

DISSOLVED METALS

-1-

INORGANIC ANALYSIS DATA SHEET

Client: EMAX Laboratories, Inc.

Service Request: K2403968

Project No.: 04E247

Date Collected: 05/26/04

Project Name: MFA, Site 1, CTO 86

Date Received: 05/29/04

Matrix: WATER

Units: µg/L

Basis: NA

Sample Name: 86-S1-010

Lab Code: K2403968-001 DISS

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|-----------|-----------------|------|------|------|----------------|---------------|--------|---|----|
| Aluminum | 6010B | 50 | 50 | 1 | 6/22/04 | 6/29/04 | 50 | U | |
| Antimony | 6010B | 50 | 20 | 1 | 6/22/04 | 6/29/04 | 20 | U | |
| Arsenic | 7060A | 10.0 | 5.0 | 5 | 6/7/04 | 6/17/04 | 7.0 | B | J |
| Barium | 6010B | 5.0 | 1.0 | 1 | 6/22/04 | 6/29/04 | 477 | | |
| Beryllium | 6010B | 5.0 | 0.2 | 1 | 6/22/04 | 6/29/04 | 0.2 | U | |
| Cadmium | 6010B | 5.0 | 2.0 | 1 | 6/22/04 | 6/29/04 | 2.0 | U | |
| Chromium | 6010B | 5.0 | 2.0 | 1 | 6/22/04 | 6/29/04 | 2.0 | U | |
| Cobalt | 6010B | 10.0 | 2.0 | 1 | 6/22/04 | 6/29/04 | 6.9 | B | |
| Copper | 7211 | 2.0 | 0.6 | 2 | 6/22/04 | 6/22/04 | 0.6 | U | NH |
| Lead | 6010B | 50 | 20 | 1 | 6/22/04 | 6/29/04 | 20 | U | |
| Nickel | 6010B | 20.0 | 3.0 | 1 | 6/22/04 | 6/29/04 | 4.7 | B | |
| Selenium | 77420 | 40.0 | 20.0 | 20 | 6/22/04 | 6/30/04 | 20.0 | U | U |
| Silver | 6010B | 10.0 | 7.0 | 1 | 6/22/04 | 6/29/04 | 7.0 | U | |
| Thallium | 6010B | 100 | 30 | 1 | 6/22/04 | 6/29/04 | 30 | U | |
| Vanadium | 6010B | 10.0 | 6.0 | 1 | 6/22/04 | 6/29/04 | 10.2 | | |
| Zinc | 6010B | 10.0 | 3.0 | 1 | 6/22/04 | 6/29/04 | 3.0 | U | |

% Solids: 0.0

Comments:

DISSOLVED METALS

-1-

INORGANIC ANALYSIS DATA SHEET

Client: EMAX Laboratories, Inc.

Service Request: K2403968

Project No.: 04E247

Date Collected: 05/26/04

Project Name: MFA, Site 1, CTO 86

Date Received: 05/29/04

Matrix: WATER

Units: µg/L

Basis: NA

Sample Name: 86-S1-010

Lab Code: K2403968-001 DISS

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|-----------|-----------------|-------|-------|------|----------------|---------------|--------|---|-----|
| Aluminum | 6010B | 50 | 50 | 1 | 6/22/04 | 6/29/04 | 50 | U | |
| Antimony | 200.8 | 1.00 | 0.12 | 1 | 6/22/04 | 6/28/04 | 2.09 | | |
| Arsenic | 200.8 | 1.00 | 0.04 | 1 | 6/24/04 | 6/29/04 | 3.62 | | N J |
| Barium | 200.8 | 1.00 | 0.60 | 1 | 6/22/04 | 6/28/04 | 524 | | |
| Beryllium | 200.8 | 0.040 | 0.002 | 1 | 6/24/04 | 6/29/04 | 0.007 | B | U |
| Cadmium | 200.8 | 0.040 | 0.006 | 1 | 6/24/04 | 6/29/04 | 0.012 | B | |
| Chromium | 200.8 | 0.40 | 0.08 | 1 | 6/24/04 | 6/29/04 | 0.80 | | |
| Cobalt | 200.8 | 0.040 | 0.004 | 1 | 6/24/04 | 6/29/04 | 3.090 | | |
| Copper | 200.8 | 0.20 | 0.02 | 1 | 6/24/04 | 6/29/04 | 0.08 | B | |
| Lead | 200.8 | 0.040 | 0.018 | 1 | 6/24/04 | 6/29/04 | 0.018 | U | |
| Nickel | 200.8 | 0.40 | 0.04 | 1 | 6/24/04 | 6/29/04 | 6.86 | | |
| Selenium | 7742 | 1.0 | 0.3 | 2 | 6/22/04 | 6/24/04 | 0.3 | B | U |
| Silver | 200.8 | 0.040 | 0.010 | 1 | 6/24/04 | 6/29/04 | 0.010 | U | |
| Thallium | 200.8 | 0.040 | 0.001 | 1 | 6/24/04 | 6/29/04 | 0.016 | B | U |
| Vanadium | 6010B | 10.0 | 6.0 | 1 | 6/22/04 | 6/29/04 | 10.2 | | |
| Zinc | 200.8 | 1.00 | 0.04 | 1 | 6/24/04 | 6/29/04 | 0.87 | B | |

* Solids: 0.0

Comments:

DISSOLVED METALS
-1-
INORGANIC ANALYSIS DATA SHEET

Client: EMAX Laboratories, Inc.

Service Request: K2403968

Project No.: 04E247

Date Collected: 05/26/04

Project Name: MFA, Site 1, CTO 86

Date Received: 05/29/04

Matrix: WATER

Units: µg/L

Basis: NA

Sample Name: 86-S1-011

Lab Code: K2403968-002 DISS

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|-----------|-----------------|------|------|------|----------------|---------------|--------|---|-----|
| Aluminum | 6010B | 50 | 50 | 1 | 6/22/04 | 6/29/04 | 50 | U | |
| Antimony | 6010B | 50 | 20 | 1 | 6/22/04 | 6/29/04 | 20 | U | |
| Arsenic | 7060A | 10.0 | 5.0 | 5 | 6/7/04 | 6/17/04 | 5.0 | U | ✓ |
| Barium | 6010B | 5.0 | 1.0 | 1 | 6/22/04 | 6/29/04 | 120 | | |
| Beryllium | 6010B | 5.0 | 0.2 | 1 | 6/22/04 | 6/29/04 | 0.2 | U | |
| Cadmium | 6010B | 5.0 | 2.0 | 1 | 6/22/04 | 6/29/04 | 2.0 | U | |
| Chromium | 6010B | 5.0 | 2.0 | 1 | 6/22/04 | 6/29/04 | 2.0 | U | |
| Cobalt | 6010B | 10.0 | 2.0 | 1 | 6/22/04 | 6/29/04 | 3.9 | B | |
| Copper | 7211 | 2.0 | 0.6 | 2 | 6/22/04 | 6/22/04 | 0.6 | U | N ✓ |
| Lead | 6010B | 50 | 20 | 1 | 6/22/04 | 6/29/04 | 20 | U | |
| Nickel | 6010B | 20.0 | 3.0 | 1 | 6/22/04 | 6/29/04 | 3.0 | U | |
| Selenium | 77470 | 40.0 | 20.0 | 20 | 6/22/04 | 6/30/04 | 20.0 | U | ✓ |
| Silver | 6010B | 10.0 | 7.0 | 1 | 6/22/04 | 6/29/04 | 7.0 | U | |
| Thallium | 6010B | 100 | 30 | 1 | 6/22/04 | 6/29/04 | 30 | U | |
| Vanadium | 6010B | 10.0 | 6.0 | 1 | 6/22/04 | 6/29/04 | 6.0 | U | |
| Zinc | 6010B | 10.0 | 3.0 | 1 | 6/22/04 | 6/29/04 | 7.1 | B | |

% Solids: 0.0

Comments:

DISSOLVED METALS

-1-

INORGANIC ANALYSIS DATA SHEET

Client: EMAX Laboratories, Inc.

Service Request: K2403968

Project No.: 04E247

Date Collected: 05/26/04

Project Name: MFA, Site 1, CTO 86

Date Received: 05/29/04

Matrix: WATER

Units: µg/L

Basis: NA

Sample Name: 86-S1-011

Lab Code: K2403968-002 DISS

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|-----------|-----------------|-------|-------|------|----------------|---------------|--------|---|---|
| Aluminum | 6010B | 50 | 50 | 1 | 6/22/04 | 6/29/04 | 50 | U | |
| Antimony | 200.8 | 1.00 | 0.12 | 1 | 6/22/04 | 6/28/04 | 1.86 | | |
| Arsenic | 200.8 | 1.00 | 0.04 | 1 | 6/24/04 | 6/29/04 | 1.57 | | |
| Barium | 200.8 | 1.00 | 0.60 | 1 | 6/22/04 | 6/28/04 | 130 | | |
| Beryllium | 200.8 | 0.040 | 0.002 | 1 | 6/24/04 | 6/29/04 | 0.006 | B | |
| Cadmium | 200.8 | 0.040 | 0.006 | 1 | 6/24/04 | 6/29/04 | 0.134 | | |
| Chromium | 200.8 | 0.40 | 0.08 | 1 | 6/24/04 | 6/29/04 | 0.43 | | |
| Cobalt | 200.8 | 0.040 | 0.004 | 1 | 6/24/04 | 6/29/04 | 0.882 | | |
| Copper | 200.8 | 0.20 | 0.02 | 1 | 6/24/04 | 6/29/04 | 0.26 | | |
| Lead | 200.8 | 0.040 | 0.018 | 1 | 6/24/04 | 6/29/04 | 0.018 | U | |
| Nickel | 200.8 | 0.40 | 0.04 | 1 | 6/24/04 | 6/29/04 | 5.66 | | |
| Selenium | 7742 | 1.0 | 0.3 | 2 | 6/22/04 | 6/24/04 | 0.3 | U | |
| Silver | 200.8 | 0.040 | 0.010 | 1 | 6/24/04 | 6/29/04 | 0.034 | B | |
| Thallium | 200.8 | 0.040 | 0.001 | 1 | 6/24/04 | 6/29/04 | 0.025 | B | |
| Vanadium | 6010B | 10.0 | 6.0 | 1 | 6/22/04 | 6/29/04 | 6.0 | U | |
| Zinc | 200.8 | 1.00 | 0.04 | 1 | 6/24/04 | 6/29/04 | 3.74 | | |

Not Spiked Sample

% Solids: 0.0

Comments:

7/17/04

00061

DISSOLVED METALS
-1-
INORGANIC ANALYSIS DATA SHEET

Client: EMAX Laboratories, Inc.

Service Request: K2403968

Project No.: 04E247

Date Collected: 05/26/04

Project Name: MFA, Site 1, CTO 86

Date Received: 05/29/04

Matrix: WATER

Units: µg/L

Basis: NA

Sample Name: 86-S1-012

Lab Code: K2403968-003 DISS

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|-----------|-----------------|------|------|------|----------------|---------------|--------|---|-------|
| Aluminum | 6010B | 50 | 50 | 1 | 6/22/04 | 6/29/04 | 50 | U | |
| Antimony | 6010B | 50 | 20 | 1 | 6/22/04 | 6/29/04 | 20 | U | |
| Arsenic | 7060A | 10.0 | 5.0 | 5 | 6/7/04 | 6/17/04 | 9.4 | B | ✓ |
| Barium | 6010B | 5.0 | 1.0 | 1 | 6/22/04 | 6/29/04 | 188 | | |
| Beryllium | 6010B | 5.0 | 0.2 | 1 | 6/22/04 | 6/29/04 | 0.2 | U | |
| Cadmium | 6010B | 5.0 | 2.0 | 1 | 6/22/04 | 6/29/04 | 2.0 | U | |
| Chromium | 6010B | 5.0 | 2.0 | 1 | 6/22/04 | 6/29/04 | 2.0 | U | |
| Cobalt | 6010B | 10.0 | 2.0 | 1 | 6/22/04 | 6/29/04 | 11.9 | | |
| Copper | 7211 | 2.0 | 0.6 | 2 | 6/22/04 | 6/22/04 | 0.6 | U | N/A ✓ |
| Lead | 6010B | 50 | 20 | 1 | 6/22/04 | 6/29/04 | 20 | U | |
| Nickel | 6010B | 20.0 | 3.0 | 1 | 6/22/04 | 6/29/04 | 12.8 | B | |
| Selenium | 7742b | 40.0 | 20.0 | 20 | 6/22/04 | 6/30/04 | 20.0 | U | ✓ |
| Silver | 6010B | 10.0 | 7.0 | 1 | 6/22/04 | 6/29/04 | 7.0 | U | |
| Thallium | 6010B | 100 | 30 | 1 | 6/22/04 | 6/29/04 | 30 | U | |
| Vanadium | 6010B | 10.0 | 6.0 | 1 | 6/22/04 | 6/29/04 | 6.8 | B | |
| Zinc | 6010B | 10.0 | 3.0 | 1 | 6/22/04 | 6/29/04 | 3.0 | U | |

% Solids: 0.0

Comments:

DISSOLVED METALS

-1-

INORGANIC ANALYSIS DATA SHEET

Client: EMAX Laboratories, Inc.

Service Request: K2403968

Project No.: 04E247

Date Collected: 05/26/04

Project Name: MFA, Site 1, CTO 86

Date Received: 05/29/04

Matrix: WATER

Units: µg/L

Basis: NA

Sample Name: 86-S1-012

Lab Code: K2403968-003 DISS

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|-----------|-----------------|-------|-------|------|----------------|---------------|--------|---|---|
| Aluminum | 6010B | 50 | 50 | 1 | 6/22/04 | 6/29/04 | 50 | U | |
| Antimony | 200.8 | 1.00 | 0.12 | 1 | 6/22/04 | 6/28/04 | 2.14 | | |
| Arsenic | 200.8 | 1.00 | 0.04 | 1 | 6/24/04 | 6/29/04 | 6.78 | | |
| Barium | 200.8 | 1.00 | 0.60 | 1 | 6/22/04 | 6/28/04 | 214 | | |
| Beryllium | 200.8 | 0.040 | 0.002 | 1 | 6/24/04 | 6/29/04 | 0.014 | B | |
| Cadmium | 200.8 | 0.040 | 0.006 | 1 | 6/24/04 | 6/29/04 | 0.006 | U | |
| Chromium | 200.8 | 0.40 | 0.08 | 1 | 6/24/04 | 6/29/04 | 1.23 | | |
| Cobalt | 200.8 | 0.040 | 0.004 | 1 | 6/24/04 | 6/29/04 | 4.650 | | |
| Copper | 200.8 | 0.20 | 0.02 | 1 | 6/24/04 | 6/29/04 | 0.19 | B | |
| Lead | 200.8 | 0.040 | 0.018 | 1 | 6/24/04 | 6/29/04 | 0.024 | B | |
| Nickel | 200.8 | 0.40 | 0.04 | 1 | 6/24/04 | 6/29/04 | 14.8 | | |
| Selenium | 7742 | 1.0 | 0.3 | 2 | 6/22/04 | 6/24/04 | 0.3 | U | |
| Silver | 200.8 | 0.040 | 0.010 | 1 | 6/24/04 | 6/29/04 | 0.016 | B | |
| Thallium | 200.8 | 0.040 | 0.001 | 1 | 6/24/04 | 6/29/04 | 0.008 | B | |
| Vanadium | 6010B | 10.0 | 6.0 | 1 | 6/22/04 | 6/29/04 | 6.8 | B | |
| Zinc | 200.8 | 1.00 | 0.04 | 1 | 6/24/04 | 6/29/04 | 1.17 | | |

% Solids: 0.0

Comments:

DISSOLVED METALS

-1-

INORGANIC ANALYSIS DATA SHEET

Client: EMAX Laboratories, Inc.

Service Request: K2403968

Project No.: 04E247

Date Collected: 05/26/04

Project Name: MFA, Site 1, CTO 86

Date Received: 05/29/04

Matrix: WATER

Units: µg/L

Basis: NA

Sample Name: 86-S1-013

Lab Code: K2403968-004 DISS

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|-----------|-----------------|------|------|------|----------------|---------------|--------|---|-----|
| Aluminum | 6010B | 50 | 50 | 1 | 6/22/04 | 6/29/04 | 50 | U | |
| Antimony | 6010B | 50 | 20 | 1 | 6/22/04 | 6/29/04 | 25.9 | B | |
| Arsenic | 7060A | 10.0 | 5.0 | 5 | 6/7/04 | 6/17/04 | 10.0 | | |
| Barium | 6010B | 5.0 | 1.0 | 1 | 6/22/04 | 6/29/04 | 210 | | |
| Beryllium | 6010B | 5.0 | 0.2 | 1 | 6/22/04 | 6/29/04 | 0.2 | U | |
| Cadmium | 6010B | 5.0 | 2.0 | 1 | 6/22/04 | 6/29/04 | 2.0 | U | |
| Chromium | 6010B | 5.0 | 2.0 | 1 | 6/22/04 | 6/29/04 | 2.0 | U | |
| Cobalt | 6010B | 10.0 | 2.0 | 1 | 6/22/04 | 6/29/04 | 14.8 | | |
| Copper | 7211 | 2.0 | 0.6 | 2 | 6/22/04 | 6/22/04 | 0.6 | U | N/A |
| Lead | 6010B | 50 | 20 | 1 | 6/22/04 | 6/29/04 | 20 | U | |
| Nickel | 6010B | 20.0 | 3.0 | 1 | 6/22/04 | 6/29/04 | 13.5 | B | |
| Selenium | 77420 | 40.0 | 20.0 | 20 | 6/22/04 | 6/30/04 | 20.0 | U | |
| Silver | 6010B | 10.0 | 7.0 | 1 | 6/22/04 | 6/29/04 | 7.0 | U | |
| Thallium | 6010B | 100 | 30 | 1 | 6/22/04 | 6/29/04 | 30 | U | |
| Vanadium | 6010B | 10.0 | 6.0 | 1 | 6/22/04 | 6/29/04 | 6.0 | U | |
| Zinc | 6010B | 10.0 | 3.0 | 1 | 6/22/04 | 6/29/04 | 3.0 | U | |

% Solids: 0.0

Comments:

DISSOLVED METALS

-1-

INORGANIC ANALYSIS DATA SHEET

Client: EMAX Laboratories, Inc.

Service Request: K2403968

Project No.: 04E247

Date Collected: 05/26/04

Project Name: MFA, Site 1, CTO 86

Date Received: 05/29/04

Matrix: WATER

Units: µg/L

Basis: NA

Sample Name: 86-S1-013

Lab Code: K2403968-004 DISS

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|-----------|-----------------|-------|-------|------|----------------|---------------|--------|---|---|
| Aluminum | 6010B | 50 | 50 | 1 | 6/22/04 | 6/29/04 | 50 | U | |
| Antimony | 200.8 | 1.00 | 0.12 | 1 | 6/22/04 | 6/28/04 | 2.25 | | |
| Arsenic | 200.8 | 1.00 | 0.04 | 1 | 6/24/04 | 6/29/04 | 6.43 | N | |
| Barium | 200.8 | 1.00 | 0.60 | 1 | 6/22/04 | 6/28/04 | 229 | | |
| Beryllium | 200.8 | 0.040 | 0.002 | 1 | 6/24/04 | 6/29/04 | 0.013 | B | |
| Cadmium | 200.8 | 0.040 | 0.006 | 1 | 6/24/04 | 6/29/04 | 0.054 | | |
| Chromium | 200.8 | 0.40 | 0.08 | 1 | 6/24/04 | 6/29/04 | 0.49 | | |
| Cobalt | 200.8 | 0.040 | 0.004 | 1 | 6/24/04 | 6/29/04 | 5.610 | | |
| Copper | 200.8 | 0.20 | 0.02 | 1 | 6/24/04 | 6/29/04 | 0.13 | B | |
| Lead | 200.8 | 0.040 | 0.018 | 1 | 6/24/04 | 6/29/04 | 0.247 | | |
| Nickel | 200.8 | 0.40 | 0.04 | 1 | 6/24/04 | 6/29/04 | 14.4 | | |
| Selenium | 7742 | 1.0 | 0.3 | 2 | 6/22/04 | 6/24/04 | 0.3 | U | |
| Silver | 200.8 | 0.040 | 0.010 | 1 | 6/24/04 | 6/29/04 | 0.239 | | |
| Thallium | 200.8 | 0.040 | 0.001 | 1 | 6/24/04 | 6/29/04 | 0.008 | B | |
| Vanadium | 6010B | 10.0 | 6.0 | 1 | 6/22/04 | 6/29/04 | 6.0 | U | |
| Zinc | 200.8 | 1.00 | 0.04 | 1 | 6/24/04 | 6/29/04 | 0.46 | B | |

% Solids: 0.0

Comments:

CASE NARRATIVE

CLIENT: TETRA TECH FW, INC.

PROJECT: MFA, SITE 1, CTO 86

SDG: 04E247

**METHOD 7470A
DISSOLVED MERCURY BY COLD VAPOR**

Four (4) water samples were received on 05/28/04 for Dissolved Mercury analysis by Method 7470A in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW846, 3rd ed.

1. Holding Time

Analysis met the holding time criteria.

2. Method Blank

Method blank was free of contamination at the reporting limit.

3. Lab Control Sample/Lab Control Sample Duplicate

Lab control results were within the control limits.

4. Serial Dilution

Sample E241-01 from another SDG was analyzed for serial dilution. % Difference was not evaluated since diluted sample result was not detected. Analytical spike was performed and met the QC limit.

5. Matrix Spike/Matrix Spike Duplicate

Sample E247-01 was spiked. The recoveries were below the QC limit.

6. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criteria were met with the aforementioned exception.

Samples were diluted due to matrix interference.

METHOD 7470A
DISSOLVED MERCURY BY COLD VAPOR

Client : TETRA TECH FM, INC.
Project : MFA, SITE 1, CTO 86
Batch No. : 04E247

Matrix : WATER
Instrument ID : T1047

| SAMPLE ID | EMAX SAMPLE ID | RESULTS (ug/L) | DLF | MOIST | RL (ug/L) | MDL (ug/L) | Analysis DATE/TIME | Extraction DATE/TIME | LFID | CAL REF | PREP BATCH | Collection DATE/TIME | Received DATE/TIME |
|--------------|-------------------|-------------------|-----|-------|--------------|---------------|-----------------------|-------------------------|------------|------------|------------|-------------------------|-----------------------|
| MBLK1W | HGF008NB | ND | 1 | NA | .2 | .1 | 06/08/0410:49 | 06/07/0415:00 | M47F009010 | M47F009008 | HGF008W | NA | 06/07/04 |
| LCS1W | HGF008NL | 4.72 | 1 | NA | .2 | .1 | 06/08/0410:52 | 06/07/0415:00 | M47F009011 | M47F009008 | HGF008W | NA | 06/07/04 |
| LCS1W | HGF008NC | 4.76 | 1 | NA | .2 | .1 | 06/08/0410:54 | 06/07/0415:00 | M47F009012 | M47F009008 | HGF008W | NA | 06/07/04 |
| 86-S1-010 | E247-01 | ND | 20 | NA | 4 | 2 | 06/08/0412:56 | 06/07/0415:00 | M47F009068 | M47F009065 | HGF008W | 05/26/04 | 05/28/04 |
| 86-S1-010MS | E247-01M | 3.3J | 20 | NA | 4 | 2 | 06/08/0412:58 | 06/07/0415:00 | M47F009069 | M47F009065 | HGF008W | 05/26/04 | 05/28/04 |
| 86-S1-010MSD | E247-01S | 3.18J | 20 | NA | 4 | 2 | 06/08/0413:00 | 06/07/0415:00 | M47F009070 | M47F009065 | HGF008W | 05/26/04 | 05/28/04 |
| 86-S1-011 | E247-03 | ND | 20 | NA | 4 | 2 | 06/08/0413:03 | 06/07/0415:00 | M47F009071 | M47F009065 | HGF008W | 05/26/04 | 05/28/04 |
| 86-S1-012 | E247-04 | ND | 20 | NA | 4 | 2 | 06/08/0413:05 | 06/07/0415:00 | M47F009072 | M47F009065 | HGF008W | 05/26/04 | 05/28/04 |
| 86-S1-013 | E247-05 | ND | 20 | NA | 4 | -2 | 06/08/0413:07 | 06/07/0415:00 | M47F009073 | M47F009065 | HGF008W | 05/26/04 | 05/28/04 |

RL: Reporting Limit

7003

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Moffett Airfield, CTO 86

Collection Date: May 26, 2004

LDC Report Date: July 6, 2004

Matrix: Water

Parameters: Dissolved Mercury

Validation Level: EPA Level III & IV

Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 04E247

Sample Identification

86-S1-010

86-S1-011

86-S1-012

86-S1-013**

86-S1-010MS

86-S1-010MSD

**Indicates sample underwent EPA Level IV review

✓
95

Introduction

This data review covers 6 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 7470A for Dissolved Mercury.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (February 1994) as there are no current guidelines for the method stated above.

A table summarizing all data qualification flags is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from specified protocols or is of technical advisory nature.

Blanks are summarized in Section III.

Field duplicates are summarized in Section XIII.

Samples indicated by a double asterisk on the front cover underwent a EPA Level IV review. A EPA Level III review was performed on all of the other samples. Raw data were not evaluated for the samples reviewed by Level III criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

An initial calibration was performed.

The frequency and analysis criteria of the initial calibration verification (ICV) and continuing calibration verification (CCV) were met.

III. Blanks

Method blanks were reviewed for each matrix as applicable.

Data qualification by the initial, continuing and preparation blanks (ICB/CCB/PBs) was based on the maximum contaminant concentration in the ICB/CCB/PBs in the analysis of each analyte. No contaminant concentrations were found in the initial, continuing and preparation blanks.

IV. ICP Interference Check Sample (ICS) Analysis

ICP interference check sample was not required by the method.

V. Matrix Spike Analysis

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

| Spike ID (Associated Samples) | Analyte | MS (%R) (Limits) | MSD (%R) (Limits) | RPD (Limits) | Flag | A or P |
|---------------------------------------------------|---------|---------------------|----------------------|-----------------|-----------------------------------------|--------|
| 86-S1-010MS/MSD (All samples in SDG 04E247) | Mercury | 66 (75-125) | 64 (75-125) | - | J (all detects) UJ (all non-detects) | A |

VI. Duplicate Sample Analysis

The laboratory has indicated that there were no duplicate (DUP) analyses specified for the samples in this SDG, and therefore duplicate analyses were not performed for this SDG.

Only S1-010
is N/A

VII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Internal Standards

ICP-MS was not utilized in this SDG.

IX. Furnace Atomic Absorption QC

Graphite furnace atomic absorption was not utilized in this SDG.

X. ICP Serial Dilution

ICP serial dilution was not required by the method.

XI. Sample Result Verification

All sample result verifications met validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XII. Overall Assessment of Data

Data flags have been summarized at the end of this report.

XIII. Field Duplicates

No field duplicates were identified in this SDG.

XIV. Field Blanks

No field blanks were identified in this SDG.

Moffett Airfield, CTO 86

Dissolved Mercury - Data Qualification Summary - SDG 04E247

| SDG | Sample | Analyte | Flag | A or P | Reason |
|--------|----------------------------------------------------|---------|-----------------------------------------|--------|----------------------------------------------|
| 04E247 | 86-S1-010 86-S1-011 86-S1-012 86-S1-013** | Mercury | J (all detects) UJ (all non-detects) | A | Matrix spike/Matrix spike duplicates (%R) |

Moffett Airfield, CTO 86

Dissolved Mercury - Laboratory Blank Data Qualification Summary - SDG 04E247

No Sample Data Qualified in this SDG

**Laboratory Data Consultants, Inc.
Data Validation Report**

Project/Site Name: Moffett Airfield, CTO 86
Collection Date: May 26, 2004
LDC Report Date: July 8, 2004
Matrix: Water
Parameters: Metals
Validation Level: EPA Level III & IV
Laboratory: Columbia Analytical Services, Inc.

Sample Delivery Group (SDG): K2403968

Sample Identification

86-S1-010
86-S1-011
86-S1-012
86-S1-013**
86-S1-010RE
86-S1-011RE
86-S1-012RE
86-S1-013RE**
86-S1-010MS
86-S1-010DUP
86-S1-010REMS
86-S1-010REDUP

**Indicates sample underwent EPA Level IV review

✓
50

Introduction

This data review covers 12 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Methods 6010B, 200.8 and 7000 for Metals. The metals analyzed were Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, Copper, Lead, Nickel, Silver, Thallium, Vanadium, and Zinc.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (February 1994) as there are no current guidelines for the methods stated above.

A table summarizing all data qualification flags is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from specified protocols or is of technical advisory nature.

Blanks are summarized in Section III.

Field duplicates are summarized in Section XIII.

Samples indicated by a double asterisk on the front cover underwent a EPA Level IV review. A EPA Level III review was performed on all of the other samples. Raw data were not evaluated for the samples reviewed by Level III criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

An initial calibration was performed.

The frequency and analysis criteria of the initial calibration verification (ICV) and continuing calibration verification (CCV) were met.

III. Blanks

Method blanks were reviewed for each matrix as applicable.

Data qualification by the initial, continuing and preparation blanks (ICB/CCB/PBs) was based on the maximum contaminant concentration in the ICB/CCB/PBs in the analysis of each analyte. No contaminant concentrations were found in the initial, continuing and preparation blanks with the following exceptions:

| Method Blank ID | Analyte | Maximum Concentration | Associated Samples |
|-----------------|-----------------------------------------------|--------------------------------------------------|------------------------------------------------------------|
| ICB/CCB | Chromium Copper | 2.2 ug/L 1.0 ug/L | 86-S1-010 86-S1-011 86-S1-012 86-S1-013** |
| PB (prep blank) | Beryllium Nickel Thallium | 0.004 ug/L 0.09 ug/L 0.001 ug/L | 86-S1-010RE 86-S1-011RE 86-S1-012RE 86-S1-013RE** |
| ICB/CCB | Antimony Beryllium Selenium Thallium | 0.02 ug/L 0.011 ug/L 0.2 ug/L 0.02 ug/L | 86-S1-010RE 86-S1-011RE 86-S1-012RE 86-S1-013RF** |

Sample concentrations were compared to the maximum contaminant concentrations detected in the ICB/CCB/PBs. The sample concentrations were either not detected or were significantly greater (>5X blank contaminants) than the concentrations found in the associated method blanks with the following exceptions:

| Sample | Analyte | Reported Concentration | Modified Final Concentration |
|---------------|-----------------------------------|--------------------------------------|-----------------------------------------------|
| 86-S1-010RE | Beryllium Selenium Thallium | 0.007 ug/L 0.3 ug/L 0.016 ug/L | 0.007U ug/L ✓ 0.3U ug/L ✓ 0.016U ug/L ✓ |
| 86-S1-011RE | Antimony Beryllium | 1.86 ug/L 0.006 ug/L | 1.86U ug/L ✓ 0.006U ug/L ✓ |
| 86-S1-012RE | Thallium | 0.008 ug/L | 0.008U ug/L ✓ |
| 86-S1-013RE** | Thallium | 0.008 ug/L | 0.008U ug/L ✓ |

IV. ICP Interference Check Sample (ICS) Analysis

The frequency of analysis was met.

The criteria for analysis were met.

V. Matrix Spike Analysis

Matrix spike (MS) analyses were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits with the following exceptions:

| Spike ID (Associated Samples) | Analyte | %R (Limits) | Flag | A or P |
|-------------------------------------------------------------------------------|---------------------------|-------------------------------------------|-----------------------------------------|--------|
| 86-S1-010MS (86-S1-010 86-S1-011 86-S1-012 86-S1-013**) | Copper | 69 (75-125) | J (all detects) UJ (all non-detects) | A |
| 86-S1-010REMS (86-S1-010RE 86-S1-011RE 86-S1-012RE 86-S1-013RE**) | Arsenic Cobalt Zinc | 31 (75-125) 66 (75-125) 67 (75-125) | J (all detects) UJ (all non-detects) | A |

VI. Duplicate Sample Analysis

Duplicate (DUP) sample analyses were reviewed for each matrix as applicable. Results were within QC limits.

VII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

VIII. Internal Standards

All internal standard percent recoveries (%R) were within QC limits with the following exceptions:

| Sample | Internal Standard | %R (Limits) | Analyte | Flag | A or P |
|---------------|---------------------------|----------------|-----------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| 86-S1-013RE** | Indium 115 | 165.2 | Antimony Barium | J (all detects) J (all detects) | A |
| 86-S1-013RE** | Nickel 61 Lutetium 175 | 452.4 130.1 | Arsenic Beryllium Cadmium Chromium Cobalt Copper Lead Nickel Silver Thallium Zinc | J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) | A |

IX. Furnace Atomic Absorption QC

All graphite furnace atomic absorption QC were within validation criteria for samples on which a EPA Level IV review was performed with the following exceptions:

| Analytical Spike | Analyte | %R (Limits) | Associated Sample | Flag | A or P |
|------------------|-------------------------------|-------------------------------------------------|----------------------------------------------------|-----------------------------------------|--------|
| 86-S1-010A | Arsenic Copper Selenium | 79.5 (85-115) 72.5 (85-115) 81.0 (85-115) | 86-S1-010 86-S1-011 86-S1-012 86-S1-013** | J (all detects) UJ (all non-detects) | A |

Raw data were not evaluated for samples reviewed by Level III criteria.

X. ICP Serial Dilution

Although ICP serial dilution analysis was not required by the method, it was performed by the laboratory. The analysis criteria were met.

XI. Sample Result Verification

All sample result verifications met validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XII.-Overall Assessment of Data

Data flags have been summarized at the end of this report.

XIII. Field Duplicates

No field duplicates were identified in this SDG.

XIV. Field Blanks

No field blanks were identified in this SDG.

Moffett Airfield, CTO 86
Metals - Data Qualification Summary - SDG K2403968

| SDG | Sample | Analyte | Flag | A or P | Reason |
|----------|------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------------------------------------|
| K2403968 | 86-S1-010 86-S1-011 86-S1-012 86-S1-013** | Copper | J (all detects) UJ (all non-detects) | A | Matrix spike analysis (%R) |
| K2403968 | 86-S1-010RE 86-S1-011RE 86-S1-012RE 86-S1-013RE** | Arsenic Cobalt Zinc | J (all detects) UJ (all non-detects) | A | Matrix spike analysis (%R) |
| K2403968 | 86-S1-013RE** | Antimony Barium Arsenic Beryllium Cadmium Chromium Cobalt Copper Lead Nickel Silver Thallium Zinc | J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) | A | Internal standards (area) |
| K2403968 | 86-S1-010 86-S1-011 86-S1-012 86-S1-013** | Arsenic Copper Selenium | J (all detects) UJ (all non-detects) | A | Furnace atomic absorption QC (%R) |

Moffett Airfield, CTO 86
Metals - Laboratory Blank Data Qualification Summary - SDG K2403968

| SDG | Sample | Analyte | Modified Final Concentration | A or P |
|----------|---------------|-----------------------------------|-----------------------------------------|--------|
| K2403968 | 86-S1-010RE | Beryllium Selenium Thallium | 0.007U ug/L 0.3U ug/L 0.016U ug/L | A |
| K2403968 | 86-S1-011RE | Antimony Beryllium | 1.86U ug/L 0.006U ug/L | A |
| K2403968 | 86-S1-012RE | Thallium | 0.008U ug/L | A |
| K2403968 | 86-S1-013RE** | Thallium | 0.008U ug/L | A |

**Laboratory Data Consultants, Inc.
Data Validation Report**

Project/Site Name: Moffett Airfield, CTO 86
Collection Date: May 26, 2004
LDC Report Date: July 1, 2004
Matrix: Water
Parameters: Polychlorinated Biphenyls
Validation Level: EPA Level III & IV
Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 04E247

Sample Identification

86-S1-010
86-S1-011
86-S1-012
86-S1-013**
86-S1-010MS
86-S1-010MSD

**Indicates sample underwent EPA Level IV review.

✓
LS

Introduction

This data review covers 6 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8082 for Polychlorinated Biphenyls.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification flags is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XIV.

Samples indicated by a double asterisk on the front cover underwent a EPA Level IV review. A EPA Level III review was performed on all other samples. Raw data were not evaluated for the samples reviewed by Level III criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UU Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/ECD Instrument Performance Check

Instrument performance data were not provided and therefore not reviewed.

III. Initial Calibration

Initial calibration of multicomponent compounds was performed for the primary (quantitation) column as required by the method.

The percent relative standard deviations (%RSD) were less than or equal to 20.0% for all compounds.

Retention time windows were evaluated and considered technically acceptable for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples on which a Level III review was performed.

IV. Continuing Calibration

Continuing calibration was performed at required frequencies.

The percent differences (%D) of calibration factors in continuing standard mixtures were within the 15.0% QC limits.

Initial calibration verification (ICV) percent differences (%D) were less than or equal to 20.0% for all compounds.

Retention time windows were evaluated and considered technically acceptable for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples on which a Level III review was performed.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No polychlorinated biphenyl contaminants were found in the method blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Pesticide Cleanup Checks

a. Florisil Cartridge Check

Florisil cleanup was not required and therefore not performed in this SDG.

b. GPC Calibration

GPC cleanup was not required and therefore not performed in this SDG.

XI. Target Compound Identification

All target compound identifications were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XII. Compound Quantitation and Reported CRQLs

All compound quantitation and CRQLs were within validation criteria for samples on which an EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XIII. Overall Assessment of Data

Data flags are summarized at the end of this report.

XIV. Field Duplicates

No field duplicates were identified in this SDG.

XV. Field Blanks

No field blanks were identified in this SDG.

Moffett Airfield, CTO 86

Polychlorinated Biphenyls - Data Qualification Summary - SDG 04E247

No Sample Data Qualified in this SDG

Moffett Airfield, CTO 86

Polychlorinated Biphenyls - Laboratory Blank Data Qualification Summary - SDG 04E247

No Sample Data Qualified in this SDG

**Laboratory Data Consultants, Inc.
Data Validation Report**

Project/Site Name: Moffett Airfield, CTO 86

Collection Date: May 26, 2004

LDC Report Date: July 1, 2004

Matrix: Water

Parameters: Chlorinated Pesticides

Validation Level: EPA Level III & IV

Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 04E247

Sample Identification

86-S1-010

86-S1-011

86-S1-012

86-S1-013**

86-S1-010MS

86-S1-010MSD

**Indicates sample underwent EPA Level IV review.

✓
YB

Introduction

This data review covers 6 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8081A for Chlorinated Pesticides.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification flags is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XIV.

Samples indicated by a double asterisk on the front cover underwent a EPA Level IV review. A EPA Level III review was performed on all other samples. Raw data were not evaluated for the samples reviewed by Level III criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UU Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/ECD Instrument Performance Check

Instrument performance was acceptable unless noted otherwise under initial calibration and continuing calibration sections.

III. Initial Calibration

Initial calibration of single and multicomponent compounds was performed for the primary (quantitation) column and confirmation column as required by this method.

The percent relative standard deviations (%RSD) were less than or equal to 20.0% for all compounds.

Retention time windows were evaluated and considered technically acceptable for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples on which a Level III review was performed.

IV. Continuing Calibration

Continuing calibration was performed at required frequencies.

The percent differences (%D) of calibration factors in continuing standard mixtures were within the 15.0% QC limits with the following exceptions:

| Date | Standard | Column | Compound | %D | Associated Samples | Flag | A or P |
|--------|----------|-----------|--------------------------------------|----------------|------------------------------------------|-----------------------------------------|--------|
| 6/3/04 | SF02031A | RTX-CLP | 4,4'-DDE 4,4'-DDD Methoxychlor | 16 17 20 | 86-S1-011 86-S1-012 86-S1-013** | J (all detects) UJ (all non-detects) | A |
| 6/3/04 | SF02031A | RTX-CLPII | Methoxychlor | 15.4 | 86-S1-011 86-S1-012 86-S1-013** | J (all detects) UJ (all non-detects) | A |
| 6/3/04 | SF02056B | RTX-CLPII | delta-BHC | 16 | 86-S1-010 86-S1-010MS 86-S1-010MSD | J (all detects) UJ (all non-detects) | A |

Initial calibration verification (ICV) percent differences (%D) were less than or equal to 20.0% for all compounds.

Retention time windows were evaluated and considered technically acceptable for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples on which a Level III review was performed.

The individual 4,4'-DDT and Endrin breakdowns were less than 15.0% .

V. Blanks

Method blanks were reviewed for each matrix as applicable. No chlorinated pesticide contaminants were found in the method blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Pesticide Cleanup Checks

a. Florisil Cartridge Check

Florisil cleanup was not required and therefore not performed in this SDG.

b. GPC Calibration

GPC cleanup was not required and therefore not performed in this SDG.

XI. Target Compound Identification

All target compound identifications were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XII. Compound Quantitation and Reported CRQLs

All compound quantitation and CRQLs were within validation criteria for samples on which an EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XIII. Overall Assessment of Data

Data flags are summarized at the end of this report.

XIV. Field Duplicates

No field duplicates were identified in this SDG.

XV. Field Blanks

No field blanks were identified in this SDG.

Moffett Airfield, CTO 86**Chlorinated Pesticides - Data Qualification Summary - SDG 04E247**

| SDG | Sample | Compound | Flag | A or P | Reason |
|--------|---------------------------------------|--------------------------------------|-----------------------------------------|--------|-----------------------------|
| 04E247 | 86-S1-011 86-S1-012 86-S1-013** | 4,4'-DDE 4,4'-DDD Methoxychlor | J (all detects) UJ (all non-detects) | A | Continuing calibration (%D) |
| 04E247 | 86-S1-011 86-S1-012 86-S1-013** | Methoxychlor | J (all detects) UJ (all non-detects) | A | Continuing calibration (%D) |
| 04E247 | 86-S1-010 | delta-BHC | J (all detects) UJ (all non-detects) | A | Continuing calibration (%D) |

Moffett Airfield, CTO 86**Chlorinated Pesticides - Laboratory Blank Data Qualification Summary - SDG 04E247**

No Sample Data Qualified in this SDG

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Moffett Field, CTO 86
Collection Date: May 26, 2004
LDC Report Date: July 2, 2004
Matrix: Water
Parameters: Semivolatiles
Validation Level: EPA Level III & IV
Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 04E247

Sample Identification

86-S1-010
86-S1-011
86-S1-012
86-S1-013**
86-S1-010MS
86-S1-010MSD

**Indicates sample underwent EPA Level IV review

J
Y

Introduction

This data review covers 6 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8270C for Semivolatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XVI.

Samples indicated by a double asterisk on the front cover underwent a EPA Level IV review. A EPA Level III review was performed on all of the other samples. Raw data were not evaluated for the samples reviewed by Level III criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

The mean percent relative standard deviation (%RSD) for selected compounds was less than or equal to 15.0% and less than or equal to 30.0% for selected individual compounds.

A curve fit, based on the initial calibration, was established for quantitation for selected compounds. The coefficient of determination (r^2) was greater than or equal to 0.990 .

Average relative response factors (RRF) for all system performance check compounds (SPCCs) were within method criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

The mean percent difference (%D) between the initial calibration RRF and the continuing calibration RRF was less than or equal to 20.0% and less than or equal to 25.0% for individual compounds.

For the purposes of technical evaluation, all compounds were evaluated against the 25.0% (%D) National Functional Guideline criteria. Unless noted above, all compounds were within the validation criteria.

Initial calibration verification (ICV) percent differences (%D) were less than or equal to 20.0% for all compounds.

All of the continuing calibration RRF values for all system performance check compounds (SPCCs) were within method and validation criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No semivolatile contaminants were found in the method blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XII. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XV. Overall Assessment

Data flags have been summarized at the end of the report.

XVI. Field Duplicates

No field duplicates were identified in this SDG.

XVII. Field Blanks

No field blanks were identified in this SDG.

Moffett Field, CTO 86

Semivolatiles - Data Qualification Summary - SDG 04E247

No Sample Data Qualified in this SDG

Moffett Field, CTO 86

Semivolatiles - Laboratory Blank Data Qualification Summary - SDG 04E247

No Sample Data Qualified in this SDG

**Laboratory Data Consultants, Inc.
Data Validation Report**

Project/Site Name: Moffett Airfield, CTO 86

Collection Date: May 26, 2004

LDC Report Date: July 2, 2004

Matrix: Water

Parameters: Volatiles

Validation Level: EPA Level III & IV

Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 04E247

Sample Identification

86-S1-010

86-S1-016

86-S1-011

86-S1-012

86-S1-013**

86-S1-010MS

86-S1-010MSD

**Indicates sample underwent EPA Level IV review

Introduction

This data review covers 7 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8260B for Volatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XVI.

Samples indicated by a double asterisk on the front cover underwent a EPA Level IV review. A EPA Level III review was performed on all of the other samples. Raw data were not evaluated for the samples reviewed by Level III criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

All samples were received in good condition with the following exceptions:

| Sample | Compound | Finding | Criteria | Flag | A or P |
|----------------------------------------------------|-------------------|-----------------------------------------------------|----------------------------------------------------------|-----------------------------------------|--------|
| 86-S1-010 86-S1-011 86-S1-012 86-S1-013** | All TCL compounds | Air bubbles were apparent in the sample containers. | There should be no air bubbles in the sample containers. | J (all detects) UJ (all non-detects) | A |

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

The mean percent relative standard deviation (%RSD) was less than or equal to 15.0% and less than or equal to 30.0% for individual compounds.

A curve fit, based on the initial calibration, was established for quantitation for selected samples. The coefficient of determination (r^2) was greater than or equal to 0.990.

Average relative response factors (RRF) for all system performance check compounds (SPCCs) were within method criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

The mean percent difference (%D) between the initial calibration RRF and the continuing calibration RRF was less than or equal to 20.0% and less than or equal to 25.0% for individual compounds with the following exceptions:

| Date | Compound | %D | Associated Samples | Flag | A or P |
|--------|---------------------------------------------------------------------|----------------------|------------------------------|-----------------------------------------|--------|
| 6/1/04 | Chloromethane Bromomethane 4-Methyl-2-pentanone 2-Hexanone | 34 26 28 27 | All samples in SDG 04E247 | J (all detects) UJ (all non-detects) | A |

For the purposes of technical evaluation, all compounds were evaluated against the 25.0% (%D) National Functional Guideline criteria. Unless noted above, all compounds were within the validation criteria.

Initial calibration verification (ICV) percent differences (%D) were less than or equal to 20.0% for all compounds.

All of the continuing calibration RRF values for all system performance check compounds (SPCCs) were within method and validation criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No volatile contaminants were found in the method blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XII. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XV. Overall Assessment of Data

Data flags have been summarized at the end of the report.

XVI. Field Duplicates

No field duplicates were identified in this SDG.

XVII. Field Blanks

Sample 86-S1-016 was identified as a trip blank. No volatile contaminants were found in this blank.

Moffett Airfield, CTO 86**Volatiles - Data Qualification Summary - SDG 04E247**

| SDG | Sample | Compound | Flag | A or P | Reason |
|--------|-----------------------------------------------------------------|---------------------------------------------------------------------|-----------------------------------------|--------|--------------------------------|
| 04E247 | 86-S1-010 86-S1-011 86-S1-012 86-S1-013** | All TCL compounds | J (all detects) UJ (all non-detects) | A | Sample condition |
| 04E247 | 86-S1-010 86-S1-016 86-S1-011 86-S1-012 86-S1-013** | Chloromethane Bromomethane 4-Methyl-2-pentanone 2-Hexanone | J (all detects) UJ (all non-detects) | A | Continuing calibration (%D) |

Moffett Airfield, CTO 86**Volatiles - Laboratory Blank Data Qualification Summary - SDG 04E247**

No Sample Data Qualified in this SDG

NOVEMBER 2004



CHAIN-OF-CUSTODY RECORD

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------------------|----------------|-------------------------------------|------------------|---------------------------------------------------------------------------------------------------------------------------------------|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|---|---|---|---|---|---|---------------------------------------------|---|------------------------------------------------------------------|--|-------|------------|----|--|------------------------------------------------------------------------------|--|--|
| PROJECT NAME CTO 86 - Site 1 - Semi Annual | | PURCHASE ORDER NO. 20848 Task 28 | | ANALYSES REQUIRED | | | | | | | | | | LABORATORY NAME CMAY | | Project Information Section Do not submit to Laboratory | | | | | | | | |
| PROJECT LOCATION Moffett | | PROJECT NO. 1990.0860 | | EPA 8260-B-EXT. LIST EPA 8210C-EXT. LIST EPA 8081A-EXT. LIST EPA 8082-EXT. LIST EPA 200.8-D. Metals EPA 7470A-D. Merc. | | | | | | | | | | LABORATORY ID (FOR LABORATORY) 04K094 | | | | | | | | | | |
| SAMPLER NAME D. Harrison | | SAMPLER SIGNATURE | | | | | | | | | | | | | | | | | | | | | | |
| PROJECT CONTACT Lynn Jefferson | | AIRBILL NUMBER 845907613390 | | | | | | | | | | | | COMMENTS | | LOCATION | | DEPTH | | QC | | | | |
| SAMPLE ID | DATE COLLECTED | TIME COLLECTED | NO. OF CONTAINER | LEVEL | TYPE | T | A | | | | | | | | | | | | | | | | | |
| | | | | 3 4 | | | | | | | | | | | | | | | | | | | | |
| 86-S1-056 | 11/8/04 | 0915 | 11 | X | W | 10 | day | X | X | X | X | X | X | X | X | | | | W1-1R | | | Reg | | |
| 86-S1-069 | 11/8/04 | 0920 | 3 | X | W | 10 | day | X | X | X | X | X | X | X | X | | | | Trip Blank | | | TB | | |
| 86-S1-057 | 11/8/04 | 1015 | 11 | X | W | 10 | day | X | X | X | X | X | X | X | X | | | | W1-15 | | | Reg | | |
| 86-S1-058 | 11/8/04 | 1110 | 11 | X | W | 10 | day | X | X | X | X | X | X | X | X | | | | W1-19 | | | Reg | | |
| 86-S1-060 | 11/9/04 | 0805 | 11 | X | W | 10 | day | X | X | X | X | X | X | X | X | | | | W1-14 | | | Reg | | |
| 86-S1-061 | 11/9/04 | 0920 | 11 | X | W | 10 | day | X | X | X | X | X | X | X | X | | | | W1-12R | | | Reg | | |
| 86-S1-062 | 11/9/04 | 1015 | 11 | X | W | 10 | day | X | X | X | X | X | X | X | X | | | | W1-22 | | | Reg | | |
| 251 | | | | | | | | | | | | | | | | | | | | | | | | |
| RELINQUISHED BY (Signature) | | DATE 11/9/04 | | RECEIVED BY (Signature) FELIX | | LABORATORY INSTRUCTIONS/COMMENTS EXT. LIST = Extended List Metals + Merc were field filtered | | | | | | | | | | | | | | | | SAMPLING COMMENT: Semi-Annual/04 Site 1 R5/04 for Sr+H ₂ | | |
| COMPANY THW | | TIME 1400 | | COMPANY | | COMPOSITE DESCRIPTION | | | | | | | | | | | | | | | | | | |
| RELINQUISHED BY (Signature) | | DATE | | RECEIVED BY (Signature) | | | | | | | | | | | | | | | | | | | | |
| COMPANY | | TIME | | COMPANY | | | | | | | | | | | | | | | | | | | | |
| RELINQUISHED BY (Signature) | | DATE | | RECEIVED BY (Signature) | | SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY) TEMPERATURE: _____ SAMPLE CONDITION: <input type="checkbox"/> INTACT <input type="checkbox"/> BROKEN COOLER SEAL: <input type="checkbox"/> INTACT <input type="checkbox"/> BROKEN | | | | | | | | | | | | | | | | | | |
| COMPANY | | TIME | | COMPANY | | | | | | | | | | | | | | | | | | | | |

CASE NARRATIVE

CLIENT: TETRA TECH FW, INC.

PROJECT: MFA, SITE 1, CTO 86

SDG: 04K094

**SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS**

Seven (7) water samples were received on 11/10/04 for Volatile Organic analysis by Method 5030B/8260B in accordance with USEPA SW846, 3rd ed.

1. Holding Time

Analytical holding time was met.

2. Tuning and Calibration

Tuning and calibration were carried out at 12-hour interval. All QC requirements were met.

3. Method Blank

Method blank was free of contamination at the reporting limit.

4. Surrogate Recovery

Recoveries were within QC limit.

5. Lab Control Sample/Lab Control Sample Duplicate

Recoveries were within QC limit.

6. Matrix Spike/Matrix Spike Duplicate

No MS/MSD sample was designated in this SDG.

7. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criteria were met.

Sample K094-07 was initially analyzed at DF 5 due to foaming.

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

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Client       : TETRA TECH FW, INC.      Date Collected: 11/08/04
Project      : MFA, SITE 1, CTO 86      Date Received: 11/10/04
Batch No.    : 04K094                   Date Extracted: 11/19/04 07:19
Sample ID    : 86-S1-056                Date Analyzed: 11/19/04 07:19
Lab Samp ID  : K094-01                  Dilution Factor: 1
Lab File ID  : RKC593~--                Matrix: WATER
Ext Btch ID  : V067K45                  % Moisture: NA
Calib. Ref.: RJC640                     Instrument ID: T-067
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| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 1,1,1,2-TETRACHLOROETHANE | ND | .5 | .2 |
| 1,1,1-TRICHLOROETHANE | ND | .5 | .2 |
| 1,1,2,2-TETRACHLOROETHANE | ND | .5 | .2 |
| 1,1,2-TRICHLOROETHANE | ND | .5 | .2 |
| 1,1-DICHLOROETHANE | ND | .5 | .2 |
| 1,1-DICHLOROETHENE | ND | .5 | .2 |
| 1,1-DICHLOROPROPENE | ND | .5 | .2 |
| 1,2,3-TRICHLOROBENZENE | ND | .5 | .2 |
| 1,2,3-TRICHLOROPROPANE | ND | .5 | .2 |
| 1,2,4-TRICHLOROBENZENE | ND | .5 | .2 |
| 1,2,4-TRIMETHYLBENZENE | ND | .5 | .2 |
| 1,2-DIBROMO-3-CHLOROPROPANE | ND | .5 | .2 |
| 1,2-DICHLOROBENZENE | ND | .5 | .2 |
| 1,2-DICHLOROETHANE | ND | .5 | .2 |
| 1,2-DICHLOROPROPANE | ND | .5 | .2 |
| 1,3,5-TRIMETHYLBENZENE | ND | .5 | .2 |
| 1,3-DICHLOROBENZENE | ND | .5 | .2 |
| 1,3-DICHLOROPROPANE | ND | .5 | .2 |
| 1,4-DICHLOROBENZENE | ND | .5 | .2 |
| 2,2-DICHLOROPROPANE | ND | .5 | .2 |
| 2-BUTANONE | ND | 10 | .2 |
| 2-CHLOROTOLUENE | ND | 10 | .2 |
| 2-HEXANONE | ND | 10 | .2 |
| 4-CHLOROTOLUENE | ND | 10 | .2 |
| 4-METHYL-2-PENTANONE | ND | 10 | .2 |
| ACETONE | ND | 10 | .2 |
| BENZENE | ND | .5 | .2 |
| BROMOBENZENE | ND | .5 | .2 |
| BROMOCHLOROMETHANE | ND | .5 | .2 |
| BROMODICHLOROMETHANE | ND | .5 | .2 |
| BROMOFORM | ND | .5 | .2 |
| BROMOMETHANE | ND | .5 | .2 |
| CARBON DISULFIDE | ND | .5 | .2 |
| CARBON TETRACHLORIDE | ND | .5 | .2 |
| CHLOROBENZENE | ND | .5 | .2 |
| CHLOROETHANE | ND | .5 | .2 |
| CHLOROFORM | ND | .5 | .2 |
| CHLOROMETHANE | ND | .5 | .2 |
| CIS-1,2-DICHLOROETHENE | ND | .5 | .2 |
| CIS-1,3-DICHLOROPROPENE | ND | .5 | .2 |
| DIBROMOCHLOROMETHANE | ND | .5 | .2 |
| DIBROMOMETHANE | ND | .5 | .2 |
| DICHLORODIFLUOROMETHANE | ND | .5 | .2 |
| ETHYLBENZENE | ND | .5 | .2 |
| HEXACHLOROBUTADIENE | ND | .5 | .2 |
| ISOPROPYL BENZENE | ND | .5 | .2 |
| M/P-XYLENES | ND | .5 | .2 |
| METHYLENE CHLORIDE | ND | .5 | .2 |
| N-BUTYLBENZENE | ND | .5 | .2 |
| N-PROPYLBENZENE | ND | .5 | .2 |
| NAPHTHALENE | ND | .5 | .2 |
| O-XYLENE | ND | .5 | .2 |
| P-ISOPROPYLTOLUENE | ND | .5 | .2 |
| SEC-BUTYLBENZENE | ND | .5 | .2 |
| STYRENE | ND | .5 | .2 |
| TERT-BUTYLBENZENE | ND | .5 | .2 |
| TETRACHLOROETHYLENE | ND | .5 | .2 |
| TOLUENE | ND | .5 | .2 |
| TRANS-1,2-DICHLOROETHENE | ND | .5 | .2 |
| TRANS-1,3-DICHLOROPROPENE | ND | .5 | .2 |
| TRICHLOROETHENE | ND | .5 | .2 |
| TRICHLOROFLUOROMETHANE | ND | .5 | .2 |
| VINYL CHLORIDE | ND | .5 | .2 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|-----------------------|------------|----------|
| 1,2-DICHLOROETHANE-D4 | 128 | 62-139 |
| TOLUENE-D8 | 91 | 75-125 |
| BROMOFLUOROBENZENE | 83 | 75-125 |

R.L. : Reporting limit
 * : Out of QC
 E : Exceeded calibration range
 B : Found in associated method blank
 J : Value between R.L. and MDL
 D : Value from dilution analysis
 D.O. : Diluted out

Revised Report

2004

SW 50308/8260B
VOLATILE ORGANICS BY GC/MS

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Client      : TETRA TECH FW, INC.      Date Collected: 11/08/04
Project     : MFA, SITE 1, CTO 86      Date Received: 11/10/04
Batch No.   : 04K094                   Date Extracted: 11/19/04 06:43
Sample ID   : 86-S1-069                 Date Analyzed: 11/19/04 06:43
Lab Samp ID : K094-02                   Dilution Factor: 1
Lab File ID : RKC592                     Matrix: WATER
Ext Btch ID : V067K45                   % Moisture: NA
Calib. Ref. : RJC640                     Instrument ID: T-067
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| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 1,1,1,2-TETRACHLOROETHANE | ND | 5 | 5 |
| 1,1,1-TRICHLOROETHANE | ND | 5 | 5 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 5 | 5 |
| 1,1,2-TRICHLOROETHANE | ND | 5 | 5 |
| 1,1-DICHLOROETHANE | ND | 5 | 5 |
| 1,1-DICHLOROETHENE | ND | 5 | 5 |
| 1,1-DICHLOROPROPENE | ND | 5 | 5 |
| 1,2,3-TRICHLOROBENZENE | ND | 5 | 5 |
| 1,2,3-TRICHLOROPROPANE | ND | 5 | 5 |
| 1,2,4-TRICHLOROBENZENE | ND | 5 | 5 |
| 1,2,4-TRIMETHYLBENZENE | ND | 5 | 5 |
| 1,2-DIBROMO-3-CHLOROPROPANE | ND | 5 | 5 |
| 1,2-DICHLOROBENZENE | ND | 5 | 5 |
| 1,2-DICHLOROETHANE | ND | 5 | 5 |
| 1,2-DICHLOROPROPANE | ND | 5 | 5 |
| 1,3,5-TRIMETHYLBENZENE | ND | 5 | 5 |
| 1,3-DICHLOROBENZENE | ND | 5 | 5 |
| 1,3-DICHLOROPROPANE | ND | 5 | 5 |
| 1,4-DICHLOROBENZENE | ND | 5 | 5 |
| 2,2-DICHLOROPROPANE | ND | 5 | 5 |
| 2-BUTANONE | ND | 10 | 10 |
| 2-CHLOROTOLUENE | ND | 5 | 5 |
| 2-HEXANONE | ND | 10 | 10 |
| 4-CHLOROTOLUENE | ND | 5 | 5 |
| 4-METHYL-2-PENTANONE | ND | 10 | 10 |
| ACETONE | ND | 10 | 10 |
| BENZENE | ND | 5 | 5 |
| BROMOBENZENE | ND | 5 | 5 |
| BROMOCHLOROMETHANE | ND | 5 | 5 |
| BROMODICHLOROMETHANE | ND | 5 | 5 |
| BROMOFORM | ND | 5 | 5 |
| BROMOMETHANE | ND | 5 | 5 |
| CARBON DISULFIDE | ND | 5 | 5 |
| CARBON TETRACHLORIDE | ND | 5 | 5 |
| CHLOROBENZENE | ND | 5 | 5 |
| CHLOROETHANE | ND | 5 | 5 |
| CHLOROFORM | ND | 5 | 5 |
| CHLOROMETHANE | ND | 5 | 5 |
| CIS-1,2-DICHLOROETHENE | ND | 5 | 5 |
| CIS-1,3-DICHLOROPROPENE | ND | 5 | 5 |
| DIBROMOCHLOROMETHANE | ND | 5 | 5 |
| DIBROMOMETHANE | ND | 5 | 5 |
| DICHLORODIFLUOROMETHANE | ND | 5 | 5 |
| ETHYLBENZENE | ND | 5 | 5 |
| HEXACHLOROBUTADIENE | ND | 5 | 5 |
| ISOPROPYL BENZENE | ND | 5 | 5 |
| M/P-XYLENES | ND | 5 | 5 |
| METHYLENE CHLORIDE | ND | 5 | 5 |
| N-BUTYLBENZENE | ND | 5 | 5 |
| N-PROPYLBENZENE | ND | 5 | 5 |
| NAPHTHALENE | ND | 5 | 5 |
| O-XYLENE | ND | 5 | 5 |
| P-ISOPROPYLTOLUENE | ND | 5 | 5 |
| SEC-BUTYLBENZENE | ND | 5 | 5 |
| STYRENE | ND | 5 | 5 |
| TERT-BUTYLBENZENE | ND | 5 | 5 |
| TETRACHLOROETHYLENE | ND | 5 | 5 |
| TOLUENE | ND | 5 | 5 |
| TRANS-1,2-DICHLOROETHENE | ND | 5 | 5 |
| TRANS-1,3-DICHLOROPROPENE | ND | 5 | 5 |
| TRICHLOROETHENE | ND | 5 | 5 |
| TRICHLOROFLUOROMETHANE | ND | 5 | 5 |
| VINYL CHLORIDE | ND | 1 | 1 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|-----------------------|------------|----------|
| 1,2-DICHLOROETHANE-D4 | 106 | 62-139 |
| TOLUENE-D8 | 97 | 75-125 |
| BROMOFLUOROBENZENE | 91 | 75-125 |

R.L. : Reporting limit
 * : Out of QC
 E : Exceeded calibration range
 B : Found in associated method blank
 J : Value between R.L. and MDL
 D : Value from dilution analysis
 D.O. : Diluted out

Revised Report

2005

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH FW, INC. Date Collected: 11/08/04
Project : MFA, SITE 1, CTO 86 Date Received: 11/10/04
Batch No. : 04K094 Date Extracted: 11/19/04 07:56
Sample ID: 86-S1-057 Date Analyzed: 11/19/04 07:56
Lab Samp ID: K094-03 Dilution Factor: 1
Lab File ID: RKC594 Matrix : WATER
Ext Btch ID: V067K45 % Moisture : NA
Calib. Ref.: RJC640 Instrument ID : T-067

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 1,1,1,2-TETRACHLOROETHANE | ND | 5 | 2 |
| 1,1,1-TRICHLOROETHANE | ND | 5 | 2 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 5 | 2 |
| 1,1,2-TRICHLOROETHANE | ND | 5 | 2 |
| 1,1-DICHLOROETHANE | ND | 5 | 2 |
| 1,1-DICHLOROETHENE | ND | 5 | 2 |
| 1,1-DICHLOROPROPENE | ND | 5 | 2 |
| 1,2,3-TRICHLOROBENZENE | ND | 5 | 2 |
| 1,2,3-TRICHLOROPROPANE | ND | 5 | 2 |
| 1,2,4-TRICHLOROBENZENE | ND | 5 | 2 |
| 1,2,4-TRIMETHYLBENZENE | ND | 5 | 2 |
| 1,2-DIBROMO-3-CHLOROPROPANE | ND | 5 | 2 |
| 1,2-DICHLOROBENZENE | ND | 5 | 2 |
| 1,2-DICHLOROETHANE | ND | 5 | 2 |
| 1,2-DICHLOROPROPANE | ND | 5 | 2 |
| 1,2,5-TRIMETHYLBENZENE | ND | 5 | 2 |
| 1,3-DICHLOROBENZENE | ND | 5 | 2 |
| 1,3-DICHLOROPROPANE | ND | 5 | 2 |
| 1,4-DICHLOROBENZENE | ND | 5 | 2 |
| 2,2-DICHLOROPROPANE | ND | 5 | 2 |
| 2-BUTANONE | ND | 10 | 2 |
| 2-CHLOROTOLUENE | ND | 5 | 2 |
| 2-HEXANONE | ND | 10 | 2 |
| 4-CHLOROTOLUENE | ND | 5 | 2 |
| 4-METHYL-2-PENTANONE | ND | 10 | 2 |
| ACETONE | ND | 10 | 2 |
| BENZENE | ND | 5 | 2 |
| BROMOBENZENE | ND | 5 | 2 |
| BROMOCHLOROMETHANE | ND | 5 | 2 |
| BROMODICHLOROMETHANE | ND | 5 | 2 |
| BROMOFORM | ND | 5 | 2 |
| BROMOMETHANE | ND | 5 | 2 |
| CARBON DISULFIDE | ND | 5 | 2 |
| CARBON TETRACHLORIDE | ND | 5 | 2 |
| CHLOROBENZENE | ND | 5 | 2 |
| CHLOROETHANE | ND | 5 | 2 |
| CHLOROFORM | ND | 5 | 2 |
| CHLOROMETHANE | ND | 5 | 2 |
| CIS-1,2-DICHLOROETHENE | ND | 5 | 2 |
| CIS-1,3-DICHLOROPROPENE | ND | 5 | 2 |
| DIBROMOCHLOROMETHANE | ND | 5 | 2 |
| DIBROMOMETHANE | ND | 5 | 2 |
| DICHLORODIFLUOROMETHANE | ND | 5 | 2 |
| ETHYLBENZENE | ND | 5 | 2 |
| HEXACHLOROBUTADIENE | ND | 5 | 2 |
| ISOPROPYL BENZENE | ND | 5 | 2 |
| M/P-XYLENES | ND | 5 | 2 |
| METHYLENE CHLORIDE | ND | 5 | 2 |
| N-BUTYLBENZENE | ND | 5 | 2 |
| N-PROPYLBENZENE | ND | 5 | 2 |
| NAPHTHALENE | ND | 5 | 2 |
| O-XYLENE | ND | 5 | 2 |
| P-ISOPROPYLTOLUENE | ND | 5 | 2 |
| SEC-BUTYLBENZENE | ND | 5 | 2 |
| STYRENE | ND | 5 | 2 |
| TERT-BUTYLBENZENE | ND | 5 | 2 |
| TETRACHLOROETHYLENE | ND | 5 | 2 |
| TOLUENE | ND | 5 | 2 |
| TRANS-1,2-DICHLOROETHENE | ND | 5 | 2 |
| TRANS-1,3-DICHLOROPROPENE | ND | 5 | 2 |
| TRICHLOROETHENE | ND | 5 | 2 |
| TRICHLOROFLUOROMETHANE | ND | 5 | 2 |
| VINYL CHLORIDE | ND | 1 | 2 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|-----------------------|------------|----------|
| 1,2-DICHLOROETHANE-D4 | 126 | 62-139 |
| TOLUENE-D8 | 91 | 75-125 |
| BROMOFLUOROBENZENE | 84 | 75-125 |

R.L. : Reporting limit
* : Out of QC
E : Exceeded calibration range
B : Found in associated method blank
J : Value between R.L. and MDL
D : Value from dilution analysis
D.O. : Diluted out

Revised Report

2006

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH FW, INC. Date Collected: 11/08/04
Project : MFA, SITE 1, CTO 86 Date Received: 11/10/04
Batch No. : 04K094 Date Extracted: 11/19/04 08:32
Sample ID: 86-S1-058 Date Analyzed: 11/19/04 08:32
Lab Samp ID: K094-04 Dilution Factor: 1
Lab File ID: RKC595 - Matrix : WATER
Ext Btch ID: V067K45 % Moisture : NA
Calib. Ref.: RJC640 Instrument ID : T-067

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 1,1,1,2-TETRACHLOROETHANE | ND | .5 | .2 |
| 1,1,1-TRICHLOROETHANE | ND | .5 | .2 |
| 1,1,2,2-TETRACHLOROETHANE | ND | .5 | .2 |
| 1,1,2-TRICHLOROETHANE | ND | .5 | .2 |
| 1,1-DICHLOROETHANE | ND | .5 | .2 |
| 1,1-DICHLOROETHENE | ND | .5 | .2 |
| 1,1-DICHLOROPROPENE | ND | .5 | .2 |
| 1,2,3-TRICHLOROBENZENE | ND | .5 | .2 |
| 1,2,3-TRICHLOROPROPANE | ND | .5 | .2 |
| 1,2,4-TRICHLOROBENZENE | ND | .5 | .2 |
| 1,2,4-TRIMETHYLBENZENE | ND | .5 | .2 |
| 1,2-DIBROMO-3-CHLOROPROPANE | ND | .5 | .2 |
| 1,2-DICHLOROBENZENE | ND | .5 | .2 |
| 1,2-DICHLOROETHANE | ND | .5 | .2 |
| 1,2-DICHLOROPROPANE | ND | .5 | .2 |
| 1,3,5-TRIMETHYLBENZENE | ND | .5 | .2 |
| 1,3-DICHLOROBENZENE | ND | .5 | .2 |
| 1,3-DICHLOROPROPANE | ND | .5 | .2 |
| 1,4-DICHLOROBENZENE | ND | .5 | .2 |
| 2,2-DICHLOROPROPANE | ND | .5 | .2 |
| 2-BUTANONE | ND | 10 | .2 |
| 2-CHLOROTOLUENE | ND | .5 | .2 |
| 2-HEXANONE | ND | 10 | .2 |
| 4-CHLOROTOLUENE | ND | .5 | .2 |
| 4-METHYL-2-PENTANONE | ND | 10 | .2 |
| ACETONE | ND | 10 | .2 |
| BENZENE | ND | .5 | .2 |
| BROMOBENZENE | ND | .5 | .2 |
| BROMOCHLOROMETHANE | ND | .5 | .2 |
| BROMODICHLOROMETHANE | ND | .5 | .2 |
| BROMOFORM | ND | .5 | .2 |
| BROMOMETHANE | ND | .5 | .2 |
| CARBON DISULFIDE | ND | .5 | .2 |
| CARBON TETRACHLORIDE | ND | .5 | .2 |
| CHLOROBENZENE | ND | .5 | .2 |
| CHLOROETHANE | ND | .5 | .2 |
| CHLOROFORM | ND | .5 | .2 |
| CHLOROMETHANE | ND | .5 | .2 |
| CIS-1,2-DICHLOROETHENE | ND | .5 | .2 |
| CIS-1,3-DICHLOROPROPENE | ND | .5 | .2 |
| DIBROMOCHLOROMETHANE | ND | .5 | .2 |
| DIBROMOMETHANE | ND | .5 | .2 |
| DICHLORODIFLUOROMETHANE | ND | .5 | .2 |
| ETHYLBENZENE | ND | .5 | .2 |
| HEXACHLOROBUTADIENE | ND | .5 | .2 |
| ISOPROPYL BENZENE | ND | .5 | .2 |
| M/P-XYLENES | ND | .5 | .2 |
| METHYLENE CHLORIDE | ND | .5 | .2 |
| N-BUTYLBENZENE | ND | .5 | .2 |
| N-PROPYLBENZENE | ND | .5 | .2 |
| NAPHTHALENE | ND | .5 | .2 |
| O-XYLENE | ND | .5 | .2 |
| P-ISOPROPYLTOLUENE | ND | .5 | .2 |
| SEC-BUTYLBENZENE | ND | .5 | .2 |
| STYRENE | ND | .5 | .2 |
| TERT-BUTYLBENZENE | ND | .5 | .2 |
| TETRACHLOROETHYLENE | ND | .5 | .2 |
| TOLUENE | ND | .5 | .2 |
| TRANS-1,2-DICHLOROETHENE | ND | .5 | .2 |
| TRANS-1,3-DICHLOROPROPENE | ND | .5 | .2 |
| TRICHLOROETHENE | ND | .5 | .2 |
| TRICHLOROFLUOROMETHANE | ND | .5 | .2 |
| VINYL CHLORIDE | ND | .5 | .2 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|-----------------------|------------|----------|
| 1,2-DICHLOROETHANE-D4 | 127 | 62-139 |
| TOLUENE-D8 | 91 | 75-125 |
| BROMOFLUOROBENZENE | 85 | 75-125 |

R.L. : Reporting limit
* : Out of QC
E : Exceeded calibration range
B : Found in associated method blank
J : Value between R.L. and MDL
D : Value from dilution analysis
D.O. : Diluted out

Revised Report

2007

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH FW, INC. Date Collected: 11/09/04
Project : MFA, SITE 1, CTO 86 Date Received: 11/10/04
Batch No. : 04K094 Date Extracted: 11/19/04 09:09
Sample ID: 86-S1-060 Date Analyzed: 11/19/04 09:09
Lab Samp ID: K094-05 Dilution Factor: 1
Lab File ID: RKC596-- Matrix : WATER
Ext Btch ID: V067K45 % Moisture : NA
Calib. Ref.: RJC640 Instrument ID : T-067

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 1,1,1,2-TETRACHLOROETHANE | ND | .5 | .2 |
| 1,1,1-TRICHLOROETHANE | ND | .5 | .2 |
| 1,1,2,2-TETRACHLOROETHANE | ND | .5 | .2 |
| 1,1,2-TRICHLOROETHANE | ND | .5 | .2 |
| 1,1-DICHLOROETHANE | ND | .5 | .2 |
| 1,1-DICHLOROETHENE | ND | .5 | .2 |
| 1,1-DICHLOROPROPENE | ND | .5 | .2 |
| 1,2,3-TRICHLOROBENZENE | ND | .5 | .2 |
| 1,2,3-TRICHLOROPROPANE | ND | .5 | .2 |
| 1,2,4-TRICHLOROBENZENE | ND | .5 | .2 |
| 1,2,4-TRIMETHYLBENZENE | ND | .5 | .2 |
| 1,2-DIBROMO-3-CHLOROPROPANE | ND | .5 | .2 |
| 1,2-DICHLOROBENZENE | ND | .5 | .2 |
| 1,2-DICHLOROETHANE | ND | .5 | .2 |
| 1,2-DICHLOROPROPANE | ND | .5 | .2 |
| 1,3,5-TRIMETHYLBENZENE | ND | .5 | .2 |
| 1,3-DICHLOROBENZENE | ND | .5 | .2 |
| 1,3-DICHLOROPROPANE | ND | .5 | .2 |
| 1,4-DICHLOROBENZENE | ND | .5 | .2 |
| 2,2-DICHLOROPROPANE | ND | .5 | .2 |
| 2-BUTANONE | ND | .5 | .2 |
| 2-CHLOROTOLUENE | ND | .5 | .2 |
| 2-HEXANONE | ND | .5 | .2 |
| 4-CHLOROTOLUENE | ND | .5 | .2 |
| 4-METHYL-2-PENTANONE | ND | .5 | .2 |
| ACETONE | ND | .5 | .2 |
| BENZENE | ND | .5 | .2 |
| BROMOBENZENE | ND | .5 | .2 |
| BROMOCHLOROMETHANE | ND | .5 | .2 |
| BROMODICHLOROMETHANE | ND | .5 | .2 |
| BROMOFORM | ND | .5 | .2 |
| BROMOMETHANE | ND | .5 | .2 |
| CARBON DISULFIDE | ND | .5 | .2 |
| CARBON TETRACHLORIDE | ND | .5 | .2 |
| CHLOROBENZENE | ND | .5 | .2 |
| CHLOROETHANE | ND | .5 | .2 |
| CHLOROFORM | ND | .5 | .2 |
| CHLOROMETHANE | ND | .5 | .2 |
| CIS-1,2-DICHLOROETHENE | ND | .5 | .2 |
| CIS-1,3-DICHLOROPROPENE | ND | .5 | .2 |
| DIBROMOCHLOROMETHANE | ND | .5 | .2 |
| DIBROMOMETHANE | ND | .5 | .2 |
| DICHLORODIFLUOROMETHANE | ND | .5 | .2 |
| ETHYLBENZENE | ND | .5 | .2 |
| HEXACHLOROBUTADIENE | ND | .5 | .2 |
| ISOPROPYL BENZENE | ND | .5 | .2 |
| M/P-XYLENES | ND | .5 | .2 |
| METHYLENE CHLORIDE | ND | .5 | .2 |
| N-BUTYLBENZENE | ND | .5 | .2 |
| N-PROPYLBENZENE | ND | .5 | .2 |
| NAPHTHALENE | ND | .5 | .2 |
| O-XYLENE | ND | .5 | .2 |
| P-ISOPROPYLTOLUENE | ND | .5 | .2 |
| SEC-BUTYLBENZENE | ND | .5 | .2 |
| STYRENE | ND | .5 | .2 |
| TERT-BUTYLBENZENE | ND | .5 | .2 |
| TETRACHLOROETHYLENE | ND | .5 | .2 |
| TOLUENE | ND | .5 | .2 |
| TRANS-1,2-DICHLOROETHENE | ND | .5 | .2 |
| TRANS-1,3-DICHLOROPROPENE | ND | .5 | .2 |
| TRICHLOROETHENE | ND | .5 | .2 |
| TRICHLOROFLUOROMETHANE | ND | .5 | .2 |
| VINYL CHLORIDE | ND | .5 | .2 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|-----------------------|------------|----------|
| 1,2-DICHLOROETHANE-D4 | 128 | 62-139 |
| TOLUENE-D8 | 90 | 75-125 |
| BROMOFLUOROBENZENE | 84 | 75-125 |

R.L. : Reporting limit
* : Out of QC
E : Exceeded calibration range
B : Found in associated method blank
J : Value between R.L. and MDL
D : Value from dilution analysis
D.O. : Diluted out

Revised Report

2010

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH FW, INC. Date Collected: 11/09/04
Project : MFA, SITE 1, CTO 86 Date Received: 11/10/04
Batch No. : 04K094 Date Extracted: 11/19/04 09:46
Sample ID: 86-S1-061 Date Analyzed: 11/19/04 09:46
Lab Samp ID: K094-06 Dilution Factor: 1
Lab File ID: RKC597 -- Matrix : WATER
Ext Btch ID: V067K45 % Moisture : NA
Calib. Ref.: RJC640 Instrument ID : T-067

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 1,1,1,2-TETRACHLOROETHANE | ND | .5 | .2 |
| 1,1,1-TRICHLOROETHANE | ND | .5 | .2 |
| 1,1,2,2-TETRACHLOROETHANE | ND | .5 | .2 |
| 1,1,2-TRICHLOROETHANE | ND | .5 | .2 |
| 1,1-DICHLOROETHANE | ND | .5 | .2 |
| 1,1-DICHLOROETHENE | ND | .5 | .2 |
| 1,1-DICHLOROPROPENE | ND | .5 | .2 |
| 1,2,3-TRICHLOROBENZENE | ND | .5 | .2 |
| 1,2,3-TRICHLOROPROPANE | ND | .5 | .2 |
| 1,2,4-TRICHLOROBENZENE | ND | .5 | .2 |
| 1,2,4-TRIMETHYLBENZENE | ND | .5 | .2 |
| 1,2-DIBROMO-3-CHLOROPROPANE | ND | .5 | .2 |
| 1,2-DICHLOROBENZENE | ND | .5 | .2 |
| 1,2-DICHLOROETHANE | ND | .5 | .2 |
| 1,2-DICHLOROPROPANE | ND | .5 | .2 |
| 1,3,5-TRIMETHYLBENZENE | ND | .5 | .2 |
| 1,3-DICHLOROBENZENE | ND | .5 | .2 |
| 1,3-DICHLOROPROPANE | ND | .5 | .2 |
| 1,4-DICHLOROBENZENE | ND | .5 | .2 |
| 2,2-DICHLOROPROPANE | ND | .5 | .2 |
| 2-BUTANONE | ND | 10 | .2 |
| 2-CHLOROTOLUENE | ND | .5 | .2 |
| 2-HEXANONE | ND | 10 | .2 |
| 4-CHLOROTOLUENE | ND | .5 | .2 |
| 4-METHYL-2-PENTANONE | ND | 10 | .2 |
| ACETONE | ND | 10 | .2 |
| BENZENE | ND | .5 | .2 |
| BROMOBENZENE | ND | .5 | .2 |
| BROMOCHLOROMETHANE | ND | .5 | .2 |
| BROMODICHLOROMETHANE | ND | .5 | .2 |
| BROMOFORM | ND | .5 | .2 |
| BROMOMETHANE | ND | .5 | .2 |
| CARBON DISULFIDE | ND | .5 | .2 |
| CARBON TETRACHLORIDE | ND | .5 | .2 |
| CHLOROBENZENE | ND | .5 | .2 |
| CHLOROETHANE | ND | .5 | .2 |
| CHLOROFORM | ND | .5 | .2 |
| CHLOROMETHANE | ND | .5 | .2 |
| CIS-1,2-DICHLOROETHENE | ND | .5 | .2 |
| CIS-1,3-DICHLOROPROPENE | ND | .5 | .2 |
| DIBROMOCHLOROMETHANE | ND | .5 | .2 |
| DIBROMOMETHANE | ND | .5 | .2 |
| DICHLORODIFLUOROMETHANE | ND | .5 | .2 |
| ETHYLBENZENE | ND | .5 | .2 |
| HEXACHLOROBUTADIENE | ND | .5 | .2 |
| ISOPROPYL BENZENE | ND | .5 | .2 |
| M/P-XYLENES | ND | .5 | .2 |
| METHYLENE CHLORIDE | ND | .5 | .2 |
| N-BUTYLBENZENE | ND | .5 | .2 |
| N-PROPYLBENZENE | ND | .5 | .2 |
| NAPHTHALENE | ND | .5 | .2 |
| O-XYLENE | ND | .5 | .2 |
| P-ISOPROPYLTOLUENE | ND | .5 | .2 |
| SEC-BUTYLBENZENE | ND | .5 | .2 |
| STYRENE | ND | .5 | .2 |
| TERT-BUTYLBENZENE | ND | .5 | .2 |
| TETRACHLOROETHYLENE | ND | .5 | .2 |
| TOLUENE | ND | .5 | .2 |
| TRANS-1,2-DICHLOROETHENE | ND | .5 | .2 |
| TRANS-1,3-DICHLOROPROPENE | ND | .5 | .2 |
| TRICHLOROETHENE | ND | .5 | .2 |
| TRICHLOROFLUOROMETHANE | ND | .5 | .2 |
| VINYL CHLORIDE | ND | 1 | .2 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|-----------------------|------------|----------|
| 1,2-DICHLOROETHANE-D4 | 124 | 62-139 |
| TOLUENE-D8 | 91 | 75-125 |
| BROMOFLUOROBENZENE | 86 | 75-125 |

R.L. : Reporting limit
* : Out of QC
E : Exceeded calibration range
B : Found in associated method blank
J : Value between R.L. and MDL
D : Value from dilution analysis
D.O. : Diluted out

Revised Report

2011

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH FW, INC. Date Collected: 11/09/04
Project : MFA, SITE 1, CTO 86 Date Received: 11/10/04
Batch No. : 04K094 Date Extracted: 11/19/04 10:22
Sample ID: 86-S1-062 Date Analyzed: 11/19/04 10:22
Lab Samp ID: K094-07 Dilution Factor: 5
Lab File ID: RKC598 -- Matrix : WATER
Ext Btch ID: V067K45 % Moisture : NA
Calib. Ref.: RJC640 Instrument ID : T-067

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 1,1,1,2-TETRACHLOROETHANE | ND | 2.5 | 1 |
| 1,1,1-TRICHLOROETHANE | ND | 2.5 | 1 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 2.5 | 1.5 |
| 1,1,2-TRICHLOROETHANE | ND | 2.5 | 1 |
| 1,1-DICHLOROETHANE | ND | 2.5 | 1 |
| 1,1-DICHLOROETHENE | ND | 2.5 | 1 |
| 1,1-DICHLOROPROPENE | ND | 2.5 | 1 |
| 1,2,3-TRICHLOROBENZENE | ND | 2.5 | 1 |
| 1,2,3-TRICHLOROPROPANE | ND | 2.5 | 1 |
| 1,2,4-TRICHLOROBENZENE | ND | 2.5 | 1 |
| 1,2,4-TRIMETHYLBENZENE | ND | 2.5 | 1 |
| 1,2-DIBROMO-3-CHLOROPROPANE | ND | 10 | 5 |
| 1,2-DICHLOROBENZENE | ND | 2.5 | 1 |
| 1,2-DICHLOROETHANE | ND | 2.5 | 1 |
| 1,2-DICHLOROPROPANE | ND | 2.5 | 1 |
| 1,3,5-TRIMETHYLBENZENE | ND | 2.5 | 1 |
| 1,3-DICHLOROBENZENE | ND | 2.5 | 1 |
| 1,3-DICHLOROPROPANE | ND | 2.5 | 1 |
| 1,4-DICHLOROBENZENE | ND | 2.5 | 1 |
| 2,2-DICHLOROPROPANE | ND | 2.5 | 1 |
| 2-BUTANONE | ND | 50 | 25 |
| 2-CHLOROTOLUENE | ND | 2.5 | 1 |
| 2-HEXANONE | ND | 50 | 5 |
| 4-CHLOROTOLUENE | ND | 2.5 | 1 |
| 4-METHYL-2-PENTANONE | ND | 50 | 5 |
| ACETONE | ND | 50 | 10 |
| BENZENE | ND | 2.5 | 1 |
| BROMOBENZENE | ND | 2.5 | 1 |
| BROMOCHLOROMETHANE | ND | 2.5 | 1 |
| BROMODICHLOROMETHANE | ND | 2.5 | 1 |
| BROMOFORM | ND | 2.5 | 2.5 |
| BROMOMETHANE | ND | 2.5 | 1 |
| CARBON DISULFIDE | ND | 2.5 | 1 |
| CARBON TETRACHLORIDE | ND | 2.5 | 1 |
| CHLOROBENZENE | ND | 2.5 | 1 |
| CHLOROETHANE | ND | 2.5 | 1 |
| CHLOROFORM | ND | 2.5 | 1 |
| CHLOROMETHANE | ND | 2.5 | 2.5 |
| CIS-1,2-DICHLOROETHENE | ND | 2.5 | 1 |
| CIS-1,3-DICHLOROPROPENE | ND | 2.5 | 1 |
| DIBROMOCHLOROMETHANE | ND | 2.5 | 1 |
| DIBROMOMETHANE | ND | 2.5 | 1 |
| DICHLORODIFLUOROMETHANE | ND | 2.5 | 2.5 |
| ETHYLBENZENE | ND | 2.5 | 1 |
| HEXACHLOROBUTADIENE | ND | 2.5 | 1 |
| ISOPROPYL BENZENE | ND | 2.5 | 1 |
| M/P-XYLENES | ND | 2.5 | 1.5 |
| METHYLENE CHLORIDE | ND | 10 | 5 |
| N-BUTYLBENZENE | ND | 2.5 | 1 |
| N-PROPYLBENZENE | ND | 2.5 | 1 |
| NAPHTHALENE | ND | 2.5 | 1.5 |
| O-XYLENE | ND | 2.5 | 1 |
| P-ISOPROPYLTOLUENE | ND | 2.5 | 1 |
| SEC-BUTYLBENZENE | ND | 2.5 | 1 |
| STYRENE | ND | 2.5 | 1 |
| TERT-BUTYLBENZENE | ND | 2.5 | 1 |
| TETRACHLOROETHYLENE | ND | 2.5 | 1 |
| TOLUENE | ND | 2.5 | 1 |
| TRANS-1,2-DICHLOROETHENE | ND | 2.5 | 1 |
| TRANS-1,3-DICHLOROPROPENE | ND | 2.5 | 1 |
| TRICHLOROETHENE | ND | 2.5 | 1 |
| TRICHLOROFLUOROMETHANE | ND | 5 | 1 |
| VINYL CHLORIDE | ND | 5 | 1.5 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|-----------------------|------------|----------|
| 1,2-DICHLOROETHANE-D4 | 116 | 62-139 |
| TOLUENE-D8 | 95 | 75-125 |
| BROMOFLUOROBENZENE | 87 | 75-125 |

R.L. : Reporting limit
* : Out of QC
E : Exceeded calibration range
B : Found in associated method blank
J : Value between R.L. and MDL
D : Value from dilution analysis
D.O. : Diluted out

Revised Report

2012

CASE NARRATIVE

CLIENT: TETRA TECH FW, INC.
PROJECT: MFA, SITE 1, CTO 86
SDG: 04K094

SW 3520C/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Six (6) water samples were received on 11/10/04 for Semi Volatile Organic analysis by Method 3520C/8270C in accordance with USEPA SW846, 3rd ed.

1. Holding Time
Analytical holding time was met.
2. Tuning and Calibration
Tuning and calibration were carried out at 12-hour interval. All QC requirements were met.
3. Method Blank
Method blank was free of contamination at the reporting limit.
4. Surrogate Recovery
Recoveries were within QC limit.
5. Lab Control Sample
Recoveries were within QC limit.
6. Matrix Spike/Matrix Spike Duplicate
No MS/MSD sample was designated in this SDG.
7. Sample Analysis
Samples were analyzed according to the prescribed QC procedures. All criteria were met.

SW 3520C/8270C
SEMI VOLATILE ORGANICS BY GC/MS

| | |
|------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 11/08/04 |
| Project : MFA SITE 1, CTO 86 | Date Received: 11/10/04 |
| Batch No. : 04K094 | Date Extracted: 11/15/04 18:00 |
| Sample ID: 86-S1-056 | Date Analyzed: 12/03/04 13:54 |
| Lab Samp ID: K094-01 | Dilution Factor: .94 |
| Lab File ID: RLH028 | Matrix : WATER |
| Ext Btch ID: SVK019W | % Moisture : NA |
| Calib. Ref.: RLH007 | Instrument ID : T-041 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 2,4,5-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4,6-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DIMETHYLPHENOL | ND | 9.4 | 4.7 |
| 2,4-DINITROPHENOL | ND | 19 | 9.4 |
| 2,4-DINITROTOLUENE | ND | 19 | 9.4 |
| 2,6-DINITROTOLUENE | ND | 19 | 5.6 |
| 2-CHLORONAPHTHALENE | ND | 9.4 | 4.7 |
| 2-CHLOROPHENOL | ND | 9.4 | 4.7 |
| 2-METHYLNAPHTHALENE | ND | 9.4 | 4.7 |
| 2-METHYLPHENOL | ND | 9.4 | 4.7 |
| 2-NITROANILINE | ND | 19 | 5.6 |
| 2-NITROPHENOL | ND | 9.4 | 4.7 |
| 3,3'-DICHLOROBENZIDINE | ND | 9.4 | 4.7 |
| 3-NITROANILINE | ND | 9.4 | 4.7 |
| 4,6-DINITRO-2-METHYLPHENOL | ND | 19 | 9.4 |
| 4-BROMOPHENYL-PHENYL ETHER | ND | 19 | 6.6 |
| 4-CHLORO-3-METHYLPHENOL | ND | 9.4 | 4.7 |
| 4-CHLOROANILINE | ND | 9.4 | 4.7 |
| 4-CHLOROPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-METHYLPHENOL (1) | ND | 9.4 | 4.7 |
| 4-NITROANILINE | ND | 9.4 | 4.7 |
| 4-NITROPHENOL | ND | 19 | 4.7 |
| ACENAPHTHENE | ND | 9.4 | 4.7 |
| ACENAPHTHYLENE | ND | 9.4 | 4.7 |
| ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)PYRENE | ND | 9.4 | 4.7 |
| BENZO(B)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(K)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(G,H,I)PERYLENE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHOXY)METHANE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-CHLOROISOPROPYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-ETHYLHEXYL)PHTHALATE | ND | 19 | 9.4 |
| BUTYLBENZYLPHTHALATE | ND | 9.4 | 4.7 |
| CHRYSENE | ND | 9.4 | 4.7 |
| DI-N-BUTYLPHTHALATE | ND | 9.4 | 4.7 |
| DI-N-OCTYLPHTHALATE | ND | 9.4 | 4.7 |
| DIBENZO(A,H)ANTHRACENE | ND | 9.4 | 4.7 |
| DIBENZOFURAN | ND | 9.4 | 4.7 |
| DIETHYLPHTHALATE | ND | 19 | 5.6 |
| DIMETHYLPHTHALATE | ND | 19 | 4.7 |
| FLUORANTHENE | ND | 9.4 | 4.7 |
| FLUORENE | ND | 9.4 | 4.7 |
| HEXACHLOROBENZENE | ND | 19 | 5.6 |
| HEXACHLOROCYCLOPENTADIENE | ND | 9.4 | 4.7 |
| HEXACHLOROETHANE | ND | 9.4 | 4.7 |
| INDENO(1,2,3-CD)PYRENE | ND | 9.4 | 4.7 |
| ISOPHORONE | ND | 9.4 | 4.7 |
| N-NITROSO-DI-N-PROPYLAMINE | ND | 9.4 | 4.7 |
| N-NITROSODIPHENYLAMINE (2) | ND | 9.4 | 4.7 |
| NITROBENZENE | ND | 9.4 | 4.7 |
| PENTACHLOROPHENOL | ND | 19 | 9.4 |
| PHENANTHRENE | ND | 19 | 5.6 |
| PHENOL | ND | 9.4 | 4.7 |
| PYRENE | ND | 9.4 | 4.7 |
| 1,1'-BIPHENYL | ND | 9.4 | 4.7 |
| ACETOPHENONE | ND | 9.4 | 2.3 |
| ATRAZINE | ND | 19 | 9.4 |
| BENZALDEHYDE | ND | 9.4 | 4.7 |
| CAPROLACTAM | ND | 9.4 | 4.7 |
| CARBAZOLE | ND | 9.4 | 4.7 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| 2,4,6-TRIBROMOPHENOL | 92 | 25-134 |
| 2-FLUOROBIPHENYL | 70 | 43-125 |
| 2-FLUOROPHENOL | 61 | 25-125 |
| NITROBENZENE-D5 | 68 | 32-125 |
| PHENOL-D5 | 65 | 25-125 |
| TERPHENYL-D14 | 102 | 42-126 |

RL: Reporting Limit

(1): Cannot be separated from 3-Methylphenol

(2): Cannot be separated from Diphenylamine

Revised Report

3004

SW 3520C/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH FW, INC. Date Collected: 11/08/04
Project : MFA, SITE 1, CTO 86 Date Received: 11/10/04
Batch No. : 04K094 Date Extracted: 11/15/04 18:00
Sample ID: 86-S1-057 Date Analyzed: 12/03/04 14:22
Lab Samp ID: K094-03 Dilution Factor: 94
Lab File ID: RLH029 Matrix : WATER
Ext Btch ID: SVK019W % Moisture : NA
Calib. Ref.: RLH007 Instrument ID : T-041

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 2,4,5-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4,6-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DIMETHYLPHENOL | ND | 9.4 | 4.7 |
| 2,4-DINITROPHENOL | ND | 19 | 9.4 |
| 2,4-DINITROTOLUENE | ND | 19 | 9.4 |
| 2,6-DINITROTOLUENE | ND | 19 | 5.6 |
| 2-CHLORONAPHTHALENE | ND | 9.4 | 4.7 |
| 2-CHLOROPHENOL | ND | 9.4 | 4.7 |
| 2-METHYLNAPHTHALENE | ND | 9.4 | 4.7 |
| 2-METHYLPHENOL | ND | 9.4 | 4.7 |
| 2-NITROANILINE | ND | 19 | 5.6 |
| 2-NITROPHENOL | ND | 9.4 | 4.7 |
| 3,3'-DICHLORO BENZIDINE | ND | 9.4 | 4.7 |
| 3-NITROANILINE | ND | 9.4 | 4.7 |
| 4,6-DINITRO-2-METHYLPHENOL | ND | 19 | 9.4 |
| 4-BROMOPHENYL-PHENYL ETHER | ND | 19 | 6.6 |
| 4-CHLORO-3-METHYLPHENOL | ND | 9.4 | 4.7 |
| 4-CHLOROANILINE | ND | 9.4 | 4.7 |
| 4-CHLOROPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-METHYLPHENOL (1) | ND | 9.4 | 4.7 |
| 4-NITROANILINE | ND | 9.4 | 4.7 |
| 4-NITROPHENOL | ND | 19 | 4.7 |
| ACENAPHTHENE | ND | 9.4 | 4.7 |
| ACENAPHTHYLENE | ND | 9.4 | 4.7 |
| ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)PYRENE | ND | 9.4 | 4.7 |
| BENZO(B)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(K)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(G,H,I)PERYLENE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHOXY)METHANE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-CHLOROISOPROPYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-ETHYLHEXYL)PHTHALATE | ND | 19 | 9.4 |
| BUTYLBENZYLPHTHALATE | ND | 9.4 | 4.7 |
| CHRYSENE | ND | 9.4 | 4.7 |
| DI-N-BUTYLPHTHALATE | ND | 9.4 | 4.7 |
| DI-N-OCTYLPHTHALATE | ND | 9.4 | 4.7 |
| DIBENZO(A,H)ANTHRACENE | ND | 9.4 | 4.7 |
| DIBENZOFURAN | ND | 9.4 | 4.7 |
| DIETHYLPHTHALATE | ND | 19 | 5.6 |
| DIMETHYLPHTHALATE | ND | 19 | 4.7 |
| FLUORANTHENE | ND | 9.4 | 4.7 |
| FLUORENE | ND | 9.4 | 4.7 |
| HEXACHLOROBENZENE | ND | 19 | 5.6 |
| HEXACHLORO CYCLOPENTADIENE | ND | 9.4 | 4.7 |
| HEXACHLOROETHANE | ND | 9.4 | 4.7 |
| INDENO(1,2,3-CD)PYRENE | ND | 9.4 | 4.7 |
| ISOPHORONE | ND | 9.4 | 4.7 |
| N-NITROSO-DI-N-PROPYLAMINE | ND | 9.4 | 4.7 |
| N-NITROSODIPHENYLAMINE (2) | ND | 9.4 | 4.7 |
| NITROBENZENE | ND | 9.4 | 4.7 |
| PENTACHLOROPHENOL | ND | 19 | 9.4 |
| PHENANTHRENE | ND | 19 | 5.6 |
| PHENOL | ND | 9.4 | 4.7 |
| PYRENE | ND | 9.4 | 4.7 |
| 1,1'-BIPHENYL | ND | 9.4 | 4.7 |
| ACETOPHENONE | ND | 9.4 | 2.3 |
| ATRAZINE | ND | 19 | 9.4 |
| BENZALDEHYDE | ND | 9.4 | 4.7 |
| CAPROLACTAM | ND | 9.4 | 4.7 |
| CARBAZOLE | ND | 9.4 | 4.7 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| 2,4,6-TRIBROMOPHENOL | 86 | 25-134 |
| 2-FLUOROBIPHENYL | 61 | 43-125 |
| 2-FLUOROPHENOL | 50 | 25-125 |
| NITROBENZENE-D5 | 56 | 32-125 |
| PHENOL-D5 | 56 | 25-125 |
| TERPHENYL-D14 | 95 | 42-126 |

RL: Reporting Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

Revised Report

3005

SW 3520C/8270C
SEMI VOLATILE ORGANICS BY GC/MS

| | |
|------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC | Date Collected: 11/08/04 |
| Project : MFA SITE 1, CTO 88 | Date Received: 11/10/04 |
| Batch No. : 04K094 | Date Extracted: 11/15/04 18:00 |
| Sample ID: 86-S1-058 | Date Analyzed: 12/03/04 14:49 |
| Lab Samp ID: K094-04 | Dilution Factor: .94 |
| Lab File ID: RLH030 | Matrix : WATER |
| Ext Btch ID: SVK019W | % Moisture : NA |
| Calib. Ref.: RLH007 | Instrument ID : T-041 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 2,4,5-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4,6-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DIMETHYLPHENOL | ND | 9.4 | 4.7 |
| 2,4-DINITROPHENOL | ND | 19 | 9.4 |
| 2,4-DINITROTOLUENE | ND | 19 | 9.4 |
| 2,6-DINITROTOLUENE | ND | 19 | 5.6 |
| 2-CHLORONAPHTHALENE | ND | 9.4 | 4.7 |
| 2-CHLOROPHENOL | ND | 9.4 | 4.7 |
| 2-METHYLNAPHTHALENE | ND | 9.4 | 4.7 |
| 2-METHYLPHENOL | ND | 9.4 | 4.7 |
| 2-NITROANILINE | ND | 19 | 5.6 |
| 2-NITROPHENOL | ND | 9.4 | 4.7 |
| 3,3'-DICHLOROBENZIDINE | ND | 9.4 | 4.7 |
| 3-NITROANILINE | ND | 9.4 | 4.7 |
| 4,6-DINITRO-2-METHYLPHENOL | ND | 19 | 9.4 |
| 4-BROMOPHENYL-PHENYL ETHER | ND | 19 | 6.6 |
| 4-CHLORO-3-METHYLPHENOL | ND | 9.4 | 4.7 |
| 4-CHLOROANILINE | ND | 9.4 | 4.7 |
| 4-CHLOROPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-METHYLPHENOL (1) | ND | 9.4 | 4.7 |
| 4-NITROANILINE | ND | 9.4 | 4.7 |
| 4-NITROPHENOL | ND | 19 | 4.7 |
| ACENAPHTHENE | ND | 9.4 | 4.7 |
| ACENAPHTHYLENE | ND | 9.4 | 4.7 |
| ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)PYRENE | ND | 9.4 | 4.7 |
| BENZO(B)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(K)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(G,H,I)PERYLENE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHOXY)METHANE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-CHLOROISOPROPYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-ETHYLHEXYL)PHTHALATE | ND | 19 | 9.4 |
| BUTYLBENZYLPHTHALATE | ND | 9.4 | 4.7 |
| CHRYSENE | ND | 9.4 | 4.7 |
| DI-N-BUTYLPHTHALATE | ND | 9.4 | 4.7 |
| DI-N-OCTYLPHTHALATE | ND | 9.4 | 4.7 |
| DIBENZO(A,H)ANTHRACENE | ND | 9.4 | 4.7 |
| DIBENZOFURAN | ND | 9.4 | 4.7 |
| DIETHYLPHTHALATE | ND | 19 | 5.6 |
| DIMETHYLPHTHALATE | ND | 19 | 4.7 |
| FLUORANTHENE | ND | 9.4 | 4.7 |
| FLUORENE | ND | 9.4 | 4.7 |
| HEXACHLOROBENZENE | ND | 19 | 5.6 |
| HEXACHLOROCYCLOPENTADIENE | ND | 9.4 | 4.7 |
| HEXACHLOROETHANE | ND | 9.4 | 4.7 |
| INDENO(1,2,3-CD)PYRENE | ND | 9.4 | 4.7 |
| ISOPHORONE | ND | 9.4 | 4.7 |
| N-NITROSO-DI-N-PROPYLAMINE | ND | 9.4 | 4.7 |
| N-NITROSODIPHENYLAMINE (2) | ND | 9.4 | 4.7 |
| NITROBENZENE | ND | 9.4 | 4.7 |
| PENTACHLOROPHENOL | ND | 19 | 9.4 |
| PHENANTHRENE | ND | 19 | 5.6 |
| PHENOL | ND | 9.4 | 4.7 |
| PYRENE | ND | 9.4 | 4.7 |
| 1,1'-BIPHENYL | ND | 9.4 | 4.7 |
| ACETOPHENONE | ND | 9.4 | 2.3 |
| ATRAZINE | ND | 19 | 9.4 |
| BENZALDEHYDE | ND | 9.4 | 4.7 |
| CAPROLACTAM | ND | 9.4 | 4.7 |
| CARBAZOLE | ND | 9.4 | 4.7 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| 2,4,6-TRIBROMOPHENOL | 86 | 25-134 |
| 2-FLUOROBIPHENYL | 67 | 43-125 |
| 2-FLUOROPHENOL | 57 | 25-125 |
| NITROBENZENE-D5 | 66 | 32-125 |
| PHENOL-D5 | 63 | 25-125 |
| TERPHENYL-D14 | 91 | 42-126 |

RL: Reporting Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

Revised Report

3006

SW 3520C/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH FW, INC. Date Collected: 11/09/04
Project : MFA SITE 1, CTO 86 Date Received: 11/10/04
Batch No. : 04K094 Date Extracted: 11/15/04 18:00
Sample ID: 86-S1-060 Date Analyzed: 12/03/04 15:17
Lab Samp ID: K094-05 Dilution Factor: .95
Lab File ID: RLH031 Matrix : WATER
Ext Btch ID: SVK019W- % Moisture : NA
Calib. Ref.: RLH007 Instrument ID : T-041

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 2,4,5-TRICHLOROPHENOL | ND | 9.5 | 4.8 |
| 2,4,6-TRICHLOROPHENOL | ND | 9.5 | 4.8 |
| 2,4-DICHLOROPHENOL | ND | 9.5 | 4.8 |
| 2,4-DIMETHYLPHENOL | ND | 9.5 | 4.8 |
| 2,4-DINITROPHENOL | ND | 19 | 9.5 |
| 2,4-DINITROTOLUENE | ND | 19 | 9.5 |
| 2,6-DINITROTOLUENE | ND | 19 | 5.7 |
| 2-CHLORONAPHTHALENE | ND | 9.5 | 4.8 |
| 2-CHLOROPHENOL | ND | 9.5 | 4.8 |
| 2-METHYLNAPHTHALENE | ND | 9.5 | 4.8 |
| 2-METHYLPHENOL | ND | 9.5 | 4.8 |
| 2-NITROANILINE | ND | 19 | 5.7 |
| 2-NITROPHENOL | ND | 9.5 | 4.8 |
| 3,3'-DICHLOROBENZIDINE | ND | 9.5 | 4.8 |
| 3-NITROANILINE | ND | 9.5 | 4.8 |
| 4,6-DINITRO-2-METHYLPHENOL | ND | 19 | 9.5 |
| 4-BROMOPHENYL-PHENYL ETHER | ND | 19 | 6.6 |
| 4-CHLORO-3-METHYLPHENOL | ND | 9.5 | 4.8 |
| 4-CHLOROANILINE | ND | 9.5 | 4.8 |
| 4-CHLOROPHENYL-PHENYL ETHER | ND | 9.5 | 4.8 |
| 4-METHYLPHENOL (1) | ND | 9.5 | 4.8 |
| 4-NITROANILINE | ND | 9.5 | 4.8 |
| 4-NITROPHENOL | ND | 19 | 4.8 |
| ACENAPHTHENE | ND | 9.5 | 4.8 |
| ACENAPHTHYLENE | ND | 9.5 | 4.8 |
| ANTHRACENE | ND | 9.5 | 4.8 |
| BENZO(A)ANTHRACENE | ND | 9.5 | 4.8 |
| BENZO(A)PYRENE | ND | 9.5 | 4.8 |
| BENZO(B)FLUORANTHENE | ND | 9.5 | 4.8 |
| BENZO(K)FLUORANTHENE | ND | 9.5 | 4.8 |
| BENZO(G,H,I)PERYLENE | ND | 9.5 | 4.8 |
| BIS(2-CHLOROETHOXY)METHANE | ND | 9.5 | 4.8 |
| BIS(2-CHLOROETHYL)ETHER | ND | 9.5 | 4.8 |
| BIS(2-CHLOROISOPROPYL)ETHER | ND | 9.5 | 4.8 |
| BIS(2-ETHYLHEXYL)PHTHALATE | ND | 19 | 9.5 |
| BUTYLBENZYLPHTHALATE | ND | 9.5 | 4.8 |
| CHRYSENE | ND | 9.5 | 4.8 |
| DI-N-BUTYLPHTHALATE | ND | 9.5 | 4.8 |
| DI-N-OCTYLPHTHALATE | ND | 9.5 | 4.8 |
| DIBENZO(A,H)ANTHRACENE | ND | 9.5 | 4.8 |
| DIBENZOFURAN | ND | 9.5 | 4.8 |
| DIETHYLPHTHALATE | ND | 19 | 5.7 |
| DIMETHYLPHTHALATE | ND | 19 | 4.8 |
| FLUORANTHENE | ND | 9.5 | 4.8 |
| FLUORENE | ND | 9.5 | 4.8 |
| HEXACHLOROBENZENE | ND | 19 | 5.7 |
| HEXACHLOROCYCLOPENTADIENE | ND | 9.5 | 4.8 |
| HEXACHLOROETHANE | ND | 9.5 | 4.8 |
| INDENO(1,2,3-CD)PYRENE | ND | 9.5 | 4.8 |
| ISOPHORONE | ND | 9.5 | 4.8 |
| N-NITROSO-DI-N-PROPYLAMINE | ND | 9.5 | 4.8 |
| N-NITROSODIPHENYLAMINE (2) | ND | 9.5 | 4.8 |
| NITROBENZENE | ND | 9.5 | 4.8 |
| PENTACHLOROPHENOL | ND | 19 | 9.5 |
| PHENANTHRENE | ND | 19 | 5.7 |
| PHENOL | ND | 9.5 | 4.8 |
| PYRENE | ND | 9.5 | 4.8 |
| 1,1'-BIPHENYL | ND | 9.5 | 4.8 |
| ACETOPHENONE | ND | 9.5 | 2.4 |
| ATRAZINE | ND | 19 | 9.5 |
| BENZALDEHYDE | ND | 9.5 | 4.8 |
| CAPROLACTAM | ND | 9.5 | 4.8 |
| CARBAZOLE | ND | 9.5 | 4.8 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| 2,4,6-TRIBROMOPHENOL | 87 | 25-134 |
| 2-FLUOROBIPHENYL | 68 | 43-125 |
| 2-FLUOROPHENOL | 63 | 25-125 |
| NITROBENZENE-D5 | 74 | 32-125 |
| PHENOL-D5 | 66 | 25-125 |
| TERPHENYL-D14 | 96 | 42-126 |

RL: Reporting Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

Revised Report

3012

SW 3520C/8270C
SEMI VOLATILE ORGANICS BY GC/MS

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=====
Client      : TETRA TECH FW, INC.      Date Collected: 11/09/04
Project     : MFA, SITE 1, CTO 86      Date Received: 11/10/04
Batch No.   : 04K094                  Date Extracted: 11/15/04 18:00
Sample ID   : 86-S1-061                Date Analyzed: 12/03/04 15:44
Lab Samp ID : K094-06                  Dilution Factor: .94
Lab File ID : RLH032                   Matrix: WATER
Ext Btch ID : SVK019W-                 % Moisture: NA
Calib. Ref. : RLH007                   Instrument ID: T-041
=====

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| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 2,4,5-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4,6-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DIMETHYLPHENOL | ND | 9.4 | 4.7 |
| 2,4-DINITROPHENOL | ND | 19 | 9.4 |
| 2,4-DINITROTOLUENE | ND | 19 | 9.4 |
| 2,6-DINITROTOLUENE | ND | 19 | 5.6 |
| 2-CHLORONAPHTHALENE | ND | 9.4 | 4.7 |
| 2-CHLOROPHENOL | ND | 9.4 | 4.7 |
| 2-METHYLNAPHTHALENE | ND | 9.4 | 4.7 |
| 2-METHYLPHENOL | ND | 9.4 | 4.7 |
| 2-NITROANILINE | ND | 19 | 5.6 |
| 2-NITROPHENOL | ND | 9.4 | 4.7 |
| 3,3'-DICHLOROBENZIDINE | ND | 9.4 | 4.7 |
| 3-NITROANILINE | ND | 9.4 | 4.7 |
| 4,6-DINITRO-2-METHYLPHENOL | ND | 19 | 9.4 |
| 4-BROMOPHENYL-PHENYL ETHER | ND | 19 | 6.6 |
| 4-CHLORO-3-METHYLPHENOL | ND | 9.4 | 4.7 |
| 4-CHLOROANILINE | ND | 9.4 | 4.7 |
| 4-CHLOROPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-METHYLPHENOL (1) | ND | 9.4 | 4.7 |
| 4-NITROANILINE | ND | 9.4 | 4.7 |
| 4-NITROPHENOL | ND | 19 | 4.7 |
| ACENAPHTHENE | ND | 9.4 | 4.7 |
| ACENAPHTHYLENE | ND | 9.4 | 4.7 |
| ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)PYRENE | ND | 9.4 | 4.7 |
| BENZO(B)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(K)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(G,H,I)PERYLENE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHOXY)METHANE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-CHLOROISOPROPYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-ETHYLHEXYL)PHTHALATE | ND | 19 | 9.4 |
| BUTYLBENZYLPHTHALATE | ND | 9.4 | 4.7 |
| CHRYSENE | ND | 9.4 | 4.7 |
| DI-N-BUTYLPHTHALATE | ND | 9.4 | 4.7 |
| DI-N-OCTYLPHTHALATE | ND | 9.4 | 4.7 |
| DIBENZO(A,H)ANTHRACENE | ND | 9.4 | 4.7 |
| DIBENZOFURAN | ND | 9.4 | 4.7 |
| DIETHYLPHTHALATE | ND | 19 | 5.6 |
| DIMETHYLPHTHALATE | ND | 19 | 4.7 |
| FLUORANTHENE | ND | 9.4 | 4.7 |
| FLUORENE | ND | 9.4 | 4.7 |
| HEXACHLOROBENZENE | ND | 19 | 5.6 |
| HEXACHLOROCYCLOPENTADIENE | ND | 9.4 | 4.7 |
| HEXACHLOROETHANE | ND | 9.4 | 4.7 |
| INDENO(1,2,3-CD)PYRENE | ND | 9.4 | 4.7 |
| ISOPHORONE | ND | 9.4 | 4.7 |
| N-NITROSO-DI-N-PROPYLAMINE | ND | 9.4 | 4.7 |
| N-NITROSODIPHENYLAMINE (2) | ND | 9.4 | 4.7 |
| NITROBENZENE | ND | 9.4 | 4.7 |
| PENTACHLOROPHENOL | ND | 19 | 9.4 |
| PHENANTHRENE | ND | 19 | 5.6 |
| PHENOL | ND | 9.4 | 4.7 |
| PYRENE | ND | 9.4 | 4.7 |
| 1,1'-BIPHENYL | ND | 9.4 | 4.7 |
| ACETOPHENONE | ND | 9.4 | 2.3 |
| ATRAZINE | ND | 19 | 9.4 |
| BENZALDEHYDE | ND | 9.4 | 4.7 |
| CAPROLACTAM | ND | 9.4 | 4.7 |
| CARBAZOLE | ND | 9.4 | 4.7 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| 2,4,6-TRIBROMOPHENOL | 89 | 25-134 |
| 2-FLUOROBIPHENYL | 72 | 43-125 |
| 2-FLUOROPHENOL | 67 | 25-125 |
| NITROBENZENE-D5 | 80 | 32-125 |
| PHENOL-D5 | 68 | 25-125 |
| TERPHENYL-D14 | 103 | 42-126 |

RL: Reporting Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

Revised Report

3013

SW 3520C/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH FW, INC. Date Collected: 11/09/04
Project : MFA, SITE 1, CTO 86 Date Received: 11/10/04
Batch No. : 04K094 Date Extracted: 11/15/04 18:00
Sample ID: 86-S1-062 Date Analyzed: 12/03/04 16:12
Lab Samp ID: K094-07 Dilution Factor: 94
Lab File ID: RLH033 Matrix : WATER
Ext Btch ID: SVK019W- % Moisture : NA
Calib. Ref.: RLH007 Instrument ID : T-041

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 2,4,5-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4,6-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DIMETHYLPHENOL | ND | 9.4 | 4.7 |
| 2,4-DINITROPHENOL | ND | 19 | 9.4 |
| 2,4-DINITROTOLUENE | ND | 19 | 9.4 |
| 2,6-DINITROTOLUENE | ND | 19 | 5.6 |
| 2-CHLORONAPHTHALENE | ND | 9.4 | 4.7 |
| 2-CHLOROPHENOL | ND | 9.4 | 4.7 |
| 2-METHYLNAPHTHALENE | ND | 9.4 | 4.7 |
| 2-METHYLPHENOL | ND | 9.4 | 4.7 |
| 2-NITROANILINE | ND | 19 | 5.6 |
| 2-NITROPHENOL | ND | 9.4 | 4.7 |
| 3,3'-DICHLOROBENZIDINE | ND | 9.4 | 4.7 |
| 3-NITROANILINE | ND | 9.4 | 4.7 |
| 4,6-DINITRO-2-METHYLPHENOL | ND | 19 | 9.4 |
| 4-BROMOPHENYL-PHENYL ETHER | ND | 19 | 6.6 |
| 4-CHLORO-3-METHYLPHENOL | ND | 9.4 | 4.7 |
| 4-CHLOROANILINE | ND | 9.4 | 4.7 |
| 4-CHLOROPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-METHYLPHENOL (1) | ND | 9.4 | 4.7 |
| 4-NITROANILINE | ND | 9.4 | 4.7 |
| 4-NITROPHENOL | ND | 19 | 4.7 |
| ACENAPHTHENE | ND | 9.4 | 4.7 |
| ACENAPHTHYLENE | ND | 9.4 | 4.7 |
| ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)PYRENE | ND | 9.4 | 4.7 |
| BENZO(B)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(K)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(G,H,I)PERYLENE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHOXY)METHANE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-CHLOROISOPROPYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-ETHYLHEXYL)PHTHALATE | ND | 19 | 9.4 |
| BUTYLBENZYLPHTHALATE | ND | 9.4 | 4.7 |
| CHRYSENE | ND | 9.4 | 4.7 |
| DI-N-BUTYLPHTHALATE | ND | 9.4 | 4.7 |
| DI-N-OCTYLPHTHALATE | ND | 9.4 | 4.7 |
| DIBENZO(A,H)ANTHRACENE | ND | 9.4 | 4.7 |
| DIBENZOFURAN | ND | 9.4 | 4.7 |
| DIETHYLPHTHALATE | ND | 19 | 5.6 |
| DIMETHYLPHTHALATE | ND | 19 | 4.7 |
| FLUORANTHENE | ND | 9.4 | 4.7 |
| FLUORENE | ND | 9.4 | 4.7 |
| HEXACHLOROBENZENE | ND | 19 | 5.6 |
| HEXACHLOROCCYCLOPENTADIENE | ND | 9.4 | 4.7 |
| HEXACHLOROETHANE | ND | 9.4 | 4.7 |
| INDENO(1,2,3-CD)PYRENE | ND | 9.4 | 4.7 |
| ISOPHORONE | ND | 9.4 | 4.7 |
| N-NITROSO-DI-N-PROPYLAMINE | ND | 9.4 | 4.7 |
| N-NITROSODIPHENYLAMINE (2) | ND | 9.4 | 4.7 |
| NITROBENZENE | ND | 9.4 | 4.7 |
| PENTACHLOROPHENOL | ND | 19 | 9.4 |
| PHENANTHRENE | ND | 19 | 5.6 |
| PHENOL | ND | 9.4 | 4.7 |
| PYRENE | ND | 9.4 | 4.7 |
| 1,1'-BIPHENYL | ND | 9.4 | 4.7 |
| ACETOPHENONE | ND | 9.4 | 2.3 |
| ATRAZINE | ND | 19 | 9.4 |
| BENZALDEHYDE | ND | 9.4 | 4.7 |
| CAPROLACTAM | ND | 9.4 | 4.7 |
| CARBAZOLE | ND | 9.4 | 4.7 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| 2,4,6-TRIBROMOPHENOL | 102 | 25-134 |
| 2-FLUOROBIPHENYL | 79 | 43-125 |
| 2-FLUOROPHENOL | 71 | 25-125 |
| NITROBENZENE-D5 | 84 | 32-125 |
| PHENOL-D5 | 75 | 25-125 |
| TERPHENYL-D14 | 108 | 42-126 |

RL: Reporting Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

Revised Report

CASE NARRATIVE

CLIENT: TETRA TECH FW, INC.

PROJECT: MFA, SITE 1, CTO 86

SDG: 04K094

**SW3520C/8081A
PESTICIDES**

Six (6) water samples were received on 11/10/04 for Pesticides analysis by Method 3520C/8081A in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW846, 3rd ed.

1. Holding Time

Analytical holding time was met except the re-extraction of K094-01, 03 and 04 was one day out of holding time.

2. Instrument Performance and Calibration

Initial calibration was at five points for Pesticides, all RSDs were within 20%. All continue calibrations were analyzed at 12-hour interval and mean recoveries were within 85-115%.

Endrin and DDT breakdown were within QC limit.

3. Method Blank

Method blanks were free of contamination at the reporting limit.

4. Surrogate Recovery

Recoveries were within QC limit except DCB in K094-01, 03, and 04. Samples were re-extracted, surrogates were within QC limits.

5. Lab Control Sample/Lab Control Sample Duplicate

All recoveries were within QC limit.

6. Matrix Spike/Matrix Spike Duplicate

No MS/MSD sample was designated in this SDG.

7. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criteria were met with the aforementioned exception.

When sample results are confirmed by a second column, the relative percentage difference (RPD) between the two results is calculated. If RPD is less than 40%, and no evidence of chromatographic problems, the higher result is reported. If RPD is greater than 40%, the chromatogram is checked for anomalies and results are selected based on the best professional judgement. If no evidence of any chromatographic problems, the higher result is reported.

SW3520C/8081A
PESTICIDES

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=====
Client      : TETRA TECH FW, INC.      Date Collected: 11/08/04
Project     : MFA, SITE 1, CTO 86      Date Received: 11/10/04
Batch No.   : 04K094                  Date Extracted: 11/12/04 18:00
Sample ID   : 86-S1-056               Date Analyzed: 11/15/04 23:08
Lab-Samp ID : K094-01                 Dilution Factor: .94
Lab File ID : SK15026A                Matrix          : WATER
Ext Btch ID : CPK013W                 % Moisture       : NA
Calib. Ref. : SK15019A                Instrument ID    : GCT008
=====

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| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---------------------|-------------------|--------------|---------------|
| ALPHA-BHC | (ND) ND | .047 | .0094 |
| GAMMA-BHC (LINDANE) | (ND) ND | .047 | .0094 |
| BETA-BHC | (ND) .012J | .047 | .0094 |
| HEPTACHLOR | (ND) ND | .047 | .0094 |
| DELTA-BHC | (ND) ND | .047 | .0094 |
| ALDRIN | (ND) .012J | .047 | .0094 |
| HEPTACHLOR EPOXIDE | (ND) ND | .047 | .0094 |
| GAMMA-CHLORDANE | (ND) ND | .047 | .0094 |
| ALPHA-CHLORDANE | (ND) ND | .047 | .0094 |
| ENDOSULFAN I | (ND) ND | .047 | .028 |
| 4,4'-DDE | (ND) ND | .094 | .028 |
| DIELDRIN | (ND) ND | .19 | .094 |
| ENDRIN | (ND) ND | .094 | .019 |
| 4,4'-DDD | (ND) ND | .094 | .028 |
| ENDOSULFAN II | (ND) ND | .094 | .019 |
| 4,4'-DDT | (ND) ND | .094 | .019 |
| ENDRIN ALDEHYDE | (ND) ND | .094 | .019 |
| ENDOSULFAN SULFATE | (ND) ND | .094 | .019 |
| ENDRIN KETONE | (ND) ND | .094 | .019 |
| METHOXYCHLOR | (ND) ND | .47 | .094 |
| TOXAPHENE | (ND) ND | 2.8 | 1.2 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| TETRACHLORO-M-XYLENE | 84 (95) | 30-130 |
| DECACHLOROBIPHENYL | 24* (27*) | 30-130 |

RL : Reporting limit
Left of | is related to first column ; Right of | related to second column
() included the reported column

Revised Report

5004

SW3520C/8081A
PESTICIDES

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=====
Client      : TETRA TECH FW, INC.      Date Collected: 11/08/04
Project     : MFA, SITE 1, CTO 86      Date Received: 11/10/04
Batch No.   : 04K094                  Date Extracted: 11/16/04 19:00
Sample ID   : 86-S1-056RE             Date Analyzed: 11/18/04 08:39
Lab Samp ID : K094-01R                Dilution Factor: .94
Lab File ID : SK17041A               Matrix      : WATER
Ext Btch ID : CPK014W                % Moisture   : NA
Calib. Ref. : SK17035A               Instrument ID : GCT008
=====

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| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---------------------|-------------------|--------------|---------------|
| ALPHA-BHC | (ND) ND | .047 | .0094 |
| GAMMA-BHC (LINDANE) | (ND) ND | .047 | .0094 |
| BETA-BHC | (ND) ND | .047 | .0094 |
| HEPTACHLOR | (ND) ND | .047 | .0094 |
| DELTA-BHC | (ND) ND | .047 | .0094 |
| ALDRIN | (ND) ND | .047 | .0094 |
| HEPTACHLOR EPOXIDE | (ND) ND | .047 | .0094 |
| GAMMA-CHLORDANE | (ND) ND | .047 | .0094 |
| ALPHA-CHLORDANE | (ND) ND | .047 | .0094 |
| ENDOSULFAN I | (ND) ND | .047 | .028 |
| 4,4'-DDE | (ND) ND | .094 | .028 |
| DIELDRIN | (ND) ND | .19 | .094 |
| ENDRIN | (ND) ND | .094 | .019 |
| 4,4'-DDD | (ND) ND | .094 | .028 |
| ENDOSULFAN II | (ND) ND | .094 | .019 |
| 4,4'-DDT | (ND) ND | .094 | .019 |
| ENDRIN ALDEHYDE | (ND) ND | .094 | .019 |
| ENDOSULFAN SULFATE | (ND) ND | .094 | .019 |
| ENDRIN KETONE | (ND) ND | .094 | .019 |
| METHOXYCHLOR | (ND) ND | .47 | .094 |
| TOXAPHENE | (ND) ND | 2.8 | 1.2 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| TETRACHLORO-M-XYLENE | 71 (77) | 30-130 |
| DECACHLOROBIPHENYL | 86 (100) | 30-130 |

RL : Reporting limit
Left of | is related to first column ; Right of | related to second column
() included the reported column

Revised Report

5005

SW3520C/8081A
PESTICIDES

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=====
Client      : TETRA TECH FW, INC.      Date Collected: 11/08/04
Project     : MFA, SITE 1, CTO 86      Date Received: 11/10/04
Batch No.   : 04K094                  Date Extracted: 11/12/04 18:00
Sample ID   : 86-S1-057               Date Analyzed: 11/15/04 23:33
Lab_Samp ID : K094-03                 Dilution Factor: .94
Lab File ID : SK15027A                Matrix       : WATER
Ext Btch ID : CPK013W                 % Moisture    : NA
Calib. Ref. : SK15019A                Instrument ID : GCT008
=====

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| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---------------------|-------------------|--------------|---------------|
| ALPHA-BHC | (ND) ND | .047 | .0094 |
| GAMMA-BHC (LINDANE) | (ND) ND | .047 | .0094 |
| BETA-BHC | (ND) .013J | .047 | .0094 |
| HEPTACHLOR | (ND) ND | .047 | .0094 |
| DELTA-BHC | (ND) ND | .047 | .0094 |
| ALDRIN | (ND) .016J | .047 | .0094 |
| HEPTACHLOR EPOXIDE | (ND) ND | .047 | .0094 |
| GAMMA-CHLORDANE | (ND) ND | .047 | .0094 |
| ALPHA-CHLORDANE | (ND) ND | .047 | .0094 |
| ENDOSULFAN I | (ND) ND | .047 | .028 |
| 4,4'-DDE | (ND) ND | .094 | .028 |
| DIELDRIN | (ND) ND | .19 | .094 |
| ENDRIN | (ND) ND | .094 | .019 |
| 4,4'-DDD | (ND) ND | .094 | .028 |
| ENDOSULFAN II | (ND) ND | .094 | .019 |
| 4,4'-DDT | (ND) ND | .094 | .019 |
| ENDRIN ALDEHYDE | (ND) ND | .094 | .019 |
| ENDOSULFAN SULFATE | (ND) ND | .094 | .019 |
| ENDRIN KETONE | (ND) .023J | .094 | .019 |
| METHOXYCHLOR | (ND) ND | .47 | .094 |
| TOXAPHENE | (ND) ND | 2.8 | 1.2 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| TETRACHLORO-M-XYLENE | 85 (97) | 30-130 |
| DECACHLOROBIPHENYL | 9* (10*) | 30-130 |

RL : Reporting limit
Left of | is related to first column ; Right of | related to second column
() included the reported column

Revised Report

5006

SW3520C/8081A
PESTICIDES

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=====
Client      : TETRA TECH FW, INC.      Date Collected: 11/08/04
Project     : MFA, SITE 1, CTO 86      Date Received: 11/10/04
Batch No.   : 04K094                  Date Extracted: 11/16/04 19:00
Sample ID: 86-S1-057RE                Date Analyzed: 11/18/04 09:04
Lab Samp ID: K094-03R                  Dilution Factor: .94
Lab File ID: SK17042A                  Matrix       : WATER
Ext Btch ID: CPK014W                   % Moisture    : NA
Calib. Ref.: SK17035A                  Instrument ID : GCT008
=====

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| PARAMETERS | RESULTS (ug/L) | | RL (ug/L) | MDL (ug/L) | |
|----------------------|-------------------|-------|--------------|---------------|-------|
| ALPHA-BHC | (ND) | ND | .047 | .0094 | .0094 |
| GAMMA-BHC (LINDANE) | (ND) | ND | .047 | .0094 | .0094 |
| BETA-BHC | (ND) | ND | .047 | .0094 | .0094 |
| HEPTACHLOR | (ND) | ND | .047 | .0094 | .0094 |
| DELTA-BHC | (ND) | ND | .047 | .0094 | .0094 |
| ALDRIN | (ND) | ND | .047 | .0094 | .0094 |
| HEPTACHLOR EPOXIDE | (ND) | ND | .047 | .0094 | .0094 |
| GAMMA-CHLORDANE | (ND) | ND | .047 | .0094 | .0094 |
| ALPHA-CHLORDANE | (ND) | ND | .047 | .0094 | .0094 |
| ENDOSULFAN I | (ND) | ND | .047 | .028 | .028 |
| 4,4'-DDE | (ND) | ND | .094 | .028 | .028 |
| DIELDRIN | (ND) | ND | .19 | .094 | .094 |
| ENDRIN | (ND) | ND | .094 | .019 | .019 |
| 4,4'-DDD | (ND) | ND | .094 | .028 | .028 |
| ENDOSULFAN II | (ND) | ND | .094 | .019 | .019 |
| 4,4'-DDT | (ND) | ND | .094 | .019 | .019 |
| ENDRIN ALDEHYDE | (ND) | ND | .094 | .019 | .019 |
| ENDOSULFAN SULFATE | (ND) | ND | .094 | .019 | .019 |
| ENDRIN KETONE | (ND) | ND | .094 | .019 | .019 |
| METHOXYCHLOR | (ND) | ND | .47 | .094 | .094 |
| TOXAPHENE | (ND) | ND | 2.8 | 1.2 | 1.2 |
| | | | | | |
| SURROGATE PARAMETERS | % RECOVERY | | QC LIMIT | | |
| TETRACHLORO-M-XYLENE | 57 | (62) | 30-130 | | |
| DECACHLOROBIPHENYL | 87 | (103) | 30-130 | | |

RL : Reporting limit
Left of | is related to first column ; Right of | related to second column
() included the reported column

Revised Report

5007

SW3520C/8081A
PESTICIDES

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=====
Client      : TETRA TECH FW, INC.      Date Collected: 11/08/04
Project     : MFA, SITE 1, CTO 86      Date Received: 11/10/04
Batch No.   : 04K094                  Date Extracted: 11/12/04 18:00
Sample ID   : 86-S1-058               Date Analyzed: 11/15/04 23:59
Lab_Samp ID : K094-04                 Dilution Factor: .94
Lab File ID : SK15028A                Matrix       : WATER
Ext Btch ID : CPK013W                 % Moisture    : NA
Calib. Ref. : SK15019A                Instrument ID : GCT008
=====

```

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|----------------------|-------------------|--------------|---------------|
| ALPHA-BHC | (ND) ND | .047 | .0094 |
| GAMMA-BHC (LINDANE) | (ND) ND | .047 | .0094 |
| BETA-BHC | (ND) .019J | .047 | .0094 |
| HEPTACHLOR | (ND) ND | .047 | .0094 |
| DELTA-BHC | (ND) ND | .047 | .0094 |
| ALDRIN | (ND) .023J | .047 | .0094 |
| HEPTACHLOR EPOXIDE | (ND) ND | .047 | .0094 |
| GAMMA-CHLORDANE | (ND) ND | .047 | .0094 |
| ALPHA-CHLORDANE | (ND) ND | .047 | .0094 |
| ENDOSULFAN I | (ND) ND | .047 | .028 |
| 4,4'-DDE | (ND) ND | .094 | .028 |
| DIELDRIN | (ND) ND | .19 | .094 |
| ENDRIN | (ND) ND | .094 | .019 |
| 4,4'-DDD | (ND) ND | .094 | .028 |
| ENDOSULFAN II | (ND) ND | .094 | .019 |
| 4,4'-DDT | (ND) ND | .094 | .019 |
| ENDRIN ALDEHYDE | (ND) ND | .094 | .019 |
| ENDOSULFAN SULFATE | (ND) ND | .094 | .019 |
| ENDRIN KETONE | (ND) .067J | .094 | .019 |
| METHOXYCHLOR | (ND) ND | .47 | .094 |
| TOXAPHENE | (ND) ND | 2.8 | 1.2 |
| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT | |
| TETRACHLORO-M-XYLENE | 79 (90) | 30-130 | |
| DECACHLOROBIPHENYL | 24* (26*) | 30-130 | |

RL : Reporting limit
Left of | is related to first column ; Right of | related to second column
() included the reported column

SW3520C/8081A
PESTICIDES

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=====
Client      : TETRA TECH FW, INC.      Date Collected: 11/08/04
Project     : MFA, SITE 1, CTO 86      Date Received: 11/10/04
Batch No.   : 04K094                  Date Extracted: 11/16/04 19:00
Sample ID   : 86-S1-058RE              Date Analyzed: 11/18/04 09:30
Lab-Samp ID : K094-04R                  Dilution Factor: .94
Lab File ID : SK17043A                  Matrix           : WATER
Ext Btch ID : CPK014W                  % Moisture        : NA
Calib. Ref. : SK17035A                  Instrument ID     : GCT008
=====

```

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---------------------|-------------------|--------------|---------------|
| ALPHA-BHC | (ND) ND | .047 | .0094 |
| GAMMA-BHC (LINDANE) | (ND) ND | .047 | .0094 |
| BETA-BHC | (ND) ND | .047 | .0094 |
| HEPTACHLOR | (ND) ND | .047 | .0094 |
| DELTA-BHC | (ND) ND | .047 | .0094 |
| ALDRIN | (ND) ND | .047 | .0094 |
| HEPTACHLOR EPOXIDE | (ND) ND | .047 | .0094 |
| GAMMA-CHLORDANE | (ND) ND | .047 | .0094 |
| ALPHA-CHLORDANE | (ND) ND | .047 | .0094 |
| ENDOSULFAN I | (ND) ND | .047 | .028 |
| 4,4'-DDE | (ND) ND | .094 | .028 |
| DIELDRIN | (ND) ND | .19 | .094 |
| ENDRIN | (ND) ND | .094 | .019 |
| 4,4'-DDD | (ND) ND | .094 | .028 |
| ENDOSULFAN II | (ND) ND | .094 | .019 |
| 4,4'-DDT | (ND) ND | .094 | .019 |
| ENDRIN ALDEHYDE | (ND) ND | .094 | .019 |
| ENDOSULFAN SULFATE | (ND) ND | .094 | .019 |
| ENDRIN KETONE | (ND) ND | .094 | .019 |
| METHOXYCHLOR | (ND) ND | .47 | .094 |
| TOXAPHENE | (ND) ND | 2.8 | 1.2 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| TETRACHLORO-M-XYLENE | 82 (89) | 30-130 |
| DECACHLOROBIPHENYL | 87 (102) | 30-130 |

RL : Reporting limit
Left of | is related to first column ; Right of | related to second column
() included the reported column

Revised Report

5011

SW3520C/8081A
PESTICIDES

```

=====
Client      : TETRA TECH FW, INC.      Date Collected: 11/09/04
Project     : MFA, SITE 1, CTO 86      Date Received: 11/10/04
Batch No.   : 04K094                  Date Extracted: 11/16/04 19:00
Sample ID: 86-S1-060                  Date Analyzed: 11/18/04 09:55
Lab_Samp ID: K094-05R                  Dilution Factor: .94
Lab File ID: SK17044A                  Matrix      : WATER
Ext Btch ID: CPK014W                   % Moisture   : NA
Calib. Ref.: SK17035A                  Instrument ID : GCT008
=====

```

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---------------------|-------------------|--------------|---------------|
| ALPHA-BHC | (ND) ND | .047 | .0094 |
| GAMMA-BHC (LINDANE) | (ND) ND | .047 | .0094 |
| BETA-BHC | (ND) ND | .047 | .0094 |
| HEPTACHLOR | (ND) ND | .047 | .0094 |
| DELTA-BHC | (ND) ND | .047 | .0094 |
| ALDRIN | (ND) .011J | .047 | .0094 |
| HEPTACHLOR EPOXIDE | (ND) ND | .047 | .0094 |
| GAMMA-CHLORDANE | (ND) ND | .047 | .0094 |
| ALPHA-CHLORDANE | (ND) ND | .047 | .0094 |
| ENDOSULFAN I | (ND) ND | .047 | .028 |
| 4,4'-DDE | (ND) ND | .094 | .028 |
| DIELDRIN | (ND) ND | .19 | .094 |
| ENDRIN | (ND) ND | .094 | .019 |
| 4,4'-DDD | (ND) ND | .094 | .028 |
| ENDOSULFAN II | (ND) ND | .094 | .019 |
| 4,4'-DDT | (ND) ND | .094 | .019 |
| ENDRIN ALDEHYDE | (ND) ND | .094 | .019 |
| ENDOSULFAN SULFATE | (ND) ND | .094 | .019 |
| ENDRIN KETONE | (ND) ND | .094 | .019 |
| METHOXYCHLOR | (ND) ND | .47 | .094 |
| TOXAPHENE | (ND) ND | 2.8 | 1.2 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| TETRACHLORO-M-XYLENE | 78 (86) | 30-130 |
| DECACHLOROBIPHENYL | 88 (104) | 30-130 |

RL : Reporting limit
Left of | is related to first column ; Right of | related to second column
() included the reported column

Revised Report

5014

SW3520C/8081A
PESTICIDES

```

=====
Client      : TETRA TECH FW, INC.      Date Collected: 11/09/04
Project     : MFA, SITE 1, CTO 86      Date Received: 11/10/04
Batch No.   : 04K094                  Date Extracted: 11/16/04 19:00
Sample ID: 86-S1-061                 Date Analyzed: 11/18/04 10:20
Lab_Samp ID: K094-06R                Dilution Factor: .94
Lab File ID: SK17045A                Matrix       : WATER
Ext Btch ID: CPK014W                 % Moisture    : NA
Calib. Ref.: SK17035A                Instrument ID : GCT008
=====

```

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---------------------|-------------------|--------------|---------------|
| ALPHA-BHC | (ND) ND | .047 | .0094 |
| GAMMA-BHC (LINDANE) | (ND) ND | .047 | .0094 |
| BETA-BHC | (ND) ND | .047 | .0094 |
| HEPTACHLOR | (ND) ND | .047 | .0094 |
| DELTA-BHC | (ND) ND | .047 | .0094 |
| ALDRIN | (ND) .01J | .047 | .0094 |
| HEPTACHLOR EPOXIDE | (ND) ND | .047 | .0094 |
| GAMMA-CHLORDANE | (ND) ND | .047 | .0094 |
| ALPHA-CHLORDANE | (ND) ND | .047 | .0094 |
| ENDOSULFAN I | (ND) ND | .047 | .028 |
| 4,4'-DDE | (ND) ND | .094 | .028 |
| DIELDRIN | (ND) ND | .19 | .094 |
| ENDRIN | (ND) ND | .094 | .019 |
| 4,4'-DDD | (ND) ND | .094 | .028 |
| ENDOSULFAN II | (ND) ND | .094 | .019 |
| 4,4'-DDT | (ND) ND | .094 | .019 |
| ENDRIN ALDEHYDE | (ND) ND | .094 | .019 |
| ENDOSULFAN SULFATE | (ND) ND | .094 | .019 |
| ENDRIN KETONE | (ND) ND | .094 | .019 |
| METHOXYCHLOR | (ND) ND | .47 | .094 |
| TOXAPHENE | (ND) ND | 2.8 | 1.2 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| TETRACHLORO-M-XYLENE | 82 (89) | 30-130 |
| DECACHLOROBIPHENYL | 85 (100) | 30-130 |

RL : Reporting limit
Left of | is related to first column ; Right of | related to second column
() included the reported column

Revised Report

5015

SW3520C/8081A
PESTICIDES

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=====
Client      : TETRA TECH FW, INC.      Date Collected: 11/09/04
Project     : MFA, SITE 1, CTO 86      Date Received: 11/10/04
Batch No.   : 04K094                  Date Extracted: 11/16/04 19:00
Sample ID: 86-S1-062                  Date Analyzed: 11/18/04 10:45
Lab_Samp ID: K094-07R                  Dilution Factor: .94
Lab File ID: SK17046A                  Matrix       : WATER
Ext Btch ID: CPK014W                    % Moisture    : NA
Calib. Ref.: SK17035A                  Instrument ID : GCT008
=====
```

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|----------------------|-------------------|--------------|---------------|
| ALPHA-BHC | .055 (.011J) | .047 | .0094 |
| GAMMA-BHC (LINDANE) | (ND) .02J | .047 | .0094 |
| BETA-BHC | .041J (.14) | .047 | .0094 |
| HEPTACHLOR | .022J (ND) | .047 | .0094 |
| DELTA-BHC | .014J (.029J) | .047 | .0094 |
| ALDRIN | .087 (ND) | .047 | .0094 |
| HEPTACHLOR EPOXIDE | .017J (.034J) | .047 | .0094 |
| GAMMA-CHLORDANE | (ND) ND | .047 | .0094 |
| ALPHA-CHLORDANE | .016J (ND) | .047 | .0094 |
| ENDOSULFAN I | (ND) .064 | .047 | .028 |
| 4,4'-DDE | .042J (ND) | .094 | .028 |
| DIELDRIN | (ND) ND | .19 | .094 |
| ENDRIN | .02J (.032J) | .094 | .019 |
| 4,4'-DDD | .051J (ND) | .094 | .028 |
| ENDOSULFAN II | (ND) ND | .094 | .019 |
| 4,4'-DDT | (ND) .074J | .094 | .019 |
| ENDRIN ALDEHYDE | (ND) ND | .094 | .019 |
| ENDOSULFAN SULFATE | (ND) ND | .094 | .019 |
| ENDRIN KETONE | (ND) .04J | .094 | .019 |
| METHOXYCHLOR | (ND) ND | .47 | .094 |
| TOXAPHENE | (ND) ND | 2.8 | 1.2 |
| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT | |
| TETRACHLORO-M-XYLENE | 88 (.92) | 30-130 | |
| DECACHLOROBIPHENYL | 70 (.117) | 30-130 | |

RL : Reporting limit
Left of | is related to first column ; Right of | related to second column
() included the reported column

Revised Report

5016

CASE NARRATIVE**CLIENT:** TETRA TECH FW, INC.**PROJECT:** MFA, SITE 1, CTO 86**SDG:** 04K094**SW3520C/8082
PCBs**

Six (6) water samples were received on 11/10/04 for PCBs analysis by Method 3520C/8082 in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW846, 3rd ed.

1. Holding Time

Analytical holding time was met except three samples K094-01, 03 and 04 were re-extracted one day out of holding time.

2. Instrument Performance and Calibration

Initial calibration was five points for PCB-1016 and PCB-1260, all RSDs were within 20%. All continue calibrations were analyzed at 12-hour interval and all recoveries were within 85-115%.

3. Method Blank

Method blanks were free of contamination at the reporting limit.

4. Surrogate Recovery

Recoveries were within QC limit except DCB in K094-01, 03 and 04. Samples were re-extracted and results met QC criteria.

5. Lab Control Sample/Lab Control Sample Duplicate

All recoveries were within QC limits.

6. Matrix Spike/Matrix Spike Duplicate

No MS/MSD sample was designated in this SDG.

7. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criteria were met with the aforementioned exception.

SW3520C/8082
PCBs

```

=====
Client      : TETRA TECH FW, INC.      Date Collected: 11/08/04
Project     : MFA, SITE 1, CTO 86      Date Received: 11/10/04
Batch No.   : 04K094                  Date Extracted: 11/12/04 18:00
Sample ID: 86-S1-056                  Date Analyzed: 11/15/04 23:08
Lab Samp ID: K094-01                  Dilution Factor: .94
Lab File ID: SK15026A                 Matrix       : WATER
Ext Btch ID: CPK013W                  % Moisture    : NA
Calib. Ref.: SK15022A                 Instrument ID : GCT008
=====

```

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|------------|-------------------|--------------|---------------|
| PCB-1016 | (ND) ND | .94 | .24 .24 |
| PCB-1221 | (ND) ND | .94 | .24 .24 |
| PCB-1232 | (ND) ND | .94 | .24 .24 |
| PCB-1242 | (ND) ND | .94 | .24 .24 |
| PCB-1248 | (ND) ND | .94 | .24 .24 |
| PCB-1254 | (ND) ND | .94 | .24 .24 |
| PCB-1260 | (ND) ND | .94 | .24 .24 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|-------------|----------|
| TETRACHLORO-M-XYLENE | (80) 92 | 30-130 |
| DECACHLOROBIPHENYL | (23*) 29* | 30-130 |

RL: Reporting Limit
Left of | is related to first column ; Right of | related to second column
() included the reported column
* Out side of QC Limit

Revised Report

5179

SW3520C/8082
PCBs

```

=====
Client      : TETRA TECH FW, INC.      Date Collected: 11/08/04
Project     : MFA, SITE 1, CTO 86      Date Received: 11/10/04
Batch No.   : 04K094                  Date Extracted: 11/16/04 19:00
Sample ID: 86-S1-056RE                Date Analyzed: 11/18/04 08:39
Lab-Samp ID: K094-01R                  Dilution Factor: .94
Lab File ID: SK17041A                  Matrix      : WATER
Ext Btch ID: CPK014W                   % Moisture   : NA
Calib. Ref.: SK17038A                  Instrument ID : GCT008
=====

```

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|------------|-------------------|--------------|---------------|
| PCB-1016 | (ND) ND | .94 | .24 .24 |
| PCB-1221 | (ND) ND | .94 | .24 .24 |
| PCB-1232 | (ND) ND | .94 | .24 .24 |
| PCB-1242 | (ND) ND | .94 | .24 .24 |
| PCB-1248 | (ND) ND | .94 | .24 .24 |
| PCB-1254 | (ND) ND | .94 | .24 .24 |
| PCB-1260 | (ND) ND | .94 | .24 .24 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| TETRACHLORO-M-XYLENE | (69) 77 | 30-130 |
| DECACHLOROBIPHENYL | (86) 107 | 30-130 |

RL: Reporting Limit
Left of | is related to first column ; Right of | related to second column
() included the reported column
* Out side of QC Limit

Revised Report

5180

```

=====
Client      : TETRA TECH FW, INC.      Date Collected: 11/08/04
Project     : MFA, SITE 1, CTO 86      Date Received: 11/10/04
Batch No.   : 04K094                  Date Extracted: 11/12/04 18:00
Sample ID: 86-S1-057                  Date Analyzed: 11/15/04 23:33
Lab Samp ID: K094-03                  Dilution Factor: .94
Lab File ID: SK15027A                 Matrix       : WATER
Ext Btch ID: CPK013W                  % Moisture    : NA
Calib. Ref.: SK15022A                 Instrument ID : GCT008
=====

```

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|------------|-------------------|--------------|---------------|
| PCB-1016 | (ND) ND | .94 | .24 .24 |
| PCB-1221 | (ND) ND | .94 | .24 .24 |
| PCB-1232 | (ND) ND | .94 | .24 .24 |
| PCB-1242 | (ND) ND | .94 | .24 .24 |
| PCB-1248 | (ND) ND | .94 | .24 .24 |
| PCB-1254 | (ND) ND | .94 | .24 .24 |
| PCB-1260 | (ND) ND | .94 | .24 .24 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| TETRACHLORO-M-XYLENE | (81) 94 | 30-130 |
| DECACHLOROBIPHENYL | (9*) 11* | 30-130 |

RL: Reporting Limit
Left of | is related to first column ; Right of | related to second column
() included the reported column
* Out side of QC Limit

Revised Report

5181

SW3520C/8082
PCBs

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=====
Client      : TETRA TECH FW, INC.      Date Collected: 11/08/04
Project     : MFA, SITE 1, CTO 86      Date Received: 11/10/04
Batch No.   : 04K094 _ _              Date Extracted: 11/16/04 19:00
Sample ID: 86-S1-057RE                 Date Analyzed: 11/18/04 09:04
Lab-Samp ID: K094-03R                  Dilution Factor: .94
Lab File ID: SK17042A                  Matrix           : WATER
Ext Btch ID: CPK014W                   % Moisture        : NA
Calib. Ref.: SK17038A                  Instrument ID    : GCT008
=====

```

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|------------|-------------------|--------------|---------------|
| PCB-1016 | (ND) ND | .94 | .24 .24 |
| PCB-1221 | (ND) ND | .94 | .24 .24 |
| PCB-1232 | (ND) ND | .94 | .24 .24 |
| PCB-1242 | (ND) ND | .94 | .24 .24 |
| PCB-1248 | (ND) ND | .94 | .24 .24 |
| PCB-1254 | (ND) ND | .94 | .24 .24 |
| PCB-1260 | (ND) ND | .94 | .24 .24 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| TETRACHLORO-M-XYLENE | (56) 63 | 30-130 |
| DECACHLOROBIPHENYL | (87) 111 | 30-130 |

RL: Reporting Limit
Left of | is related to first column ; Right of | related to second column
() included the reported column
* Out side of QC Limit

Revised Report

5182

SW3520C/8082
PCBs

```

=====
Client      : TETRA TECH FW, INC.      Date Collected: 11/08/04
Project     : MFA, SITE 1, CTO 86      Date Received: 11/10/04
Batch No.   : 04K094                  Date Extracted: 11/12/04 18:00
Sample ID   : 86-S1-058               Date Analyzed: 11/15/04 23:59
Lab_Samp ID : K094-04                 Dilution Factor: .94
Lab File ID : SK15028A                Matrix       : WATER
Ext Btch ID : CPK013W                 % Moisture    : NA
Calib. Ref. : SK15022A                Instrument ID : GCT008
=====

```

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|------------|-------------------|--------------|---------------|
| PCB-1016 | (ND) ND | .94 | .24 .24 |
| PCB-1221 | (ND) ND | .94 | .24 .24 |
| PCB-1232 | (ND) ND | .94 | .24 .24 |
| PCB-1242 | (ND) ND | .94 | .24 .24 |
| PCB-1248 | (ND) ND | .94 | .24 .24 |
| PCB-1254 | (ND) ND | .94 | .24 .24 |
| PCB-1260 | (ND) ND | .94 | .24 .24 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| TETRACHLORO-M-XYLENE | (75) 87 | 30-130 |
| DECACHLOROBIPHENYL | (23*) 28* | 30-130 |

RL: Reporting Limit
Left of | is related to first column ; Right of | related to second column
() included the reported column
* Out side of QC Limit

Revised Report

5183


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=====
Client      : TETRA TECH FW, INC.      Date Collected: 11/08/04
Project     : MFA, SITE 1, CTO 86      Date Received: 11/10/04
Batch No.   : 04K094                   Date Extracted: 11/16/04 19:00
Sample ID: 86-S1-058RE                 Date Analyzed: 11/18/04 09:30
Lab Samp ID: K094-04R                  Dilution Factor: .94
Lab File ID: SK17043A                  Matrix       : WATER
Ext Btch ID: CPK014W                   % Moisture    : NA
Calib. Ref.: SK17038A                  Instrument ID : GCT008
=====

```

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|------------|-------------------|--------------|---------------|
| PCB-1016 | (ND) ND | .94 | .24 .24 |
| PCB-1221 | (ND) ND | .94 | .24 .24 |
| PCB-1232 | (ND) ND | .94 | .24 .24 |
| PCB-1242 | (ND) ND | .94 | .24 .24 |
| PCB-1248 | (ND) ND | .94 | .24 .24 |
| PCB-1254 | (ND) ND | .94 | .24 .24 |
| PCB-1260 | (ND) ND | .94 | .24 .24 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| TETRACHLORO-M-XYLENE | (80) 90 | 30-130 |
| DECACHLOROBIPHENYL | (87) 109 | 30-130 |

RL: Reporting Limit
Left of | is related to first column ; Right of | related to second column
() included the reported column
* Out side of QC Limit

```

=====
Client      : TETRA TECH FW, INC.      Date Collected: 11/09/04
Project     : MFA, SITE 1, CTO 86      Date Received: 11/10/04
Batch No.   : 04K094                   Date Extracted: 11/16/04 19:00
Sample ID   : 86-S1-060                Date Analyzed: 11/18/04 09:55
Lab-Samp ID : K094-05R                  Dilution Factor: .94
Lab File ID : SK17044A                  Matrix           : WATER
Ext Btch ID : CPK014W                   % Moisture        : NA
Calib. Ref. : SK17038A                  Instrument ID    : GCT008
=====

```

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|------------|-------------------|--------------|---------------|
| PCB-1016 | (ND) ND | .94 | .24 .24 |
| PCB-1221 | (ND) ND | .94 | .24 .24 |
| PCB-1232 | (ND) ND | .94 | .24 .24 |
| PCB-1242 | (ND) ND | .94 | .24 .24 |
| PCB-1248 | (ND) ND | .94 | .24 .24 |
| PCB-1254 | (ND) ND | .94 | .24 .24 |
| PCB-1260 | (ND) ND | .94 | .24 .24 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| TETRACHLORO-M-XYLENE | (75) 85 | 30-130 |
| DECACHLOROBIPHENYL | (87) 112 | 30-130 |

RL: Reporting Limit
Left of | is related to first column ; Right of | related to second column
() included the reported column
* Out side of QC Limit

Revised Report

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=====
Client      : TETRA TECH FW, INC.      Date Collected: 11/09/04
Project     : MFA, SITE 1, CTO 86      Date Received: 11/10/04
Batch No.   : 04K094                  Date Extracted: 11/16/04 19:00
Sample ID   : 86-S1-061               Date Analyzed: 11/18/04 10:20
Lab Samp ID : K094-06R                Dilution Factor: .94
Lab File ID : SK17045A                Matrix          : WATER
Ext Btch ID : CPK014W                 % Moisture       : NA
Calib. Ref. : SK17038A                Instrument ID    : GCT008
=====

```

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|------------|-------------------|--------------|---------------|
| PCB-1016 | (ND) ND | .94 | .24 .24 |
| PCB-1221 | (ND) ND | .94 | .24 .24 |
| PCB-1232 | (ND) ND | .94 | .24 .24 |
| PCB-1242 | (ND) ND | .94 | .24 .24 |
| PCB-1248 | (ND) ND | .94 | .24 .24 |
| PCB-1254 | (ND) ND | .94 | .24 .24 |
| PCB-1260 | (ND) ND | .94 | .24 .24 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| TETRACHLORO-M-XYLENE | (80) 90 | 30-130 |
| DECACHLOROBIPHENYL | (84) 108 | 30-130 |

RL: Reporting Limit
Left of | is related to first column ; Right of | related to second column
() included the reported column
* Out side of QC Limit

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=====
Client      : TETRA TECH FW, INC.      Date Collected: 11/09/04
Project     : MFA, SITE 1, CTO 86      Date Received: 11/10/04
Batch No.   : 04K094                  Date Extracted: 11/16/04 19:00
Sample ID   : 86-S1-062                Date Analyzed: 11/18/04 10:45
Lab_Samp ID : K094-07R                  Dilution Factor: .94
Lab File ID : SK17D46A                  Matrix          : WATER
Ext Btch ID : CPK014W                   % Moisture       : NA
Calib. Ref. : SK17038A                  Instrument ID    : GCT008
=====

```

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|------------|-------------------|--------------|---------------|
| PCB-1016 | (ND) ND | .94 | .24 .24 |
| PCB-1221 | (ND) ND | .94 | .24 .24 |
| PCB-1232 | (ND) ND | .94 | .24 .24 |
| PCB-1242 | (ND) ND | .94 | .24 .24 |
| PCB-1248 | (ND) ND | .94 | .24 .24 |
| PCB-1254 | (ND) ND | .94 | .24 .24 |
| PCB-1260 | (ND) ND | .94 | .24 .24 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| TETRACHLORO-M-XYLENE | (93) 104 | 30-130 |
| DECACHLOROBIPHENYL | (70) 126 | 30-130 |

RL: Reporting Limit
 Left of | is related to first column ; Right of | related to second column
 () included the reported column
 * Out side of QC Limit

CASE NARRATIVE

CLIENT: TETRA TECH FW, INC.

PROJECT: MFA, SITE 1, CTO 86

SDG: 04K094

METHOD 7470A
DISSOLVED MERCURY BY COLD VAPOR

Six (6) water samples were received on 11/10/04 for Dissolved Mercury analysis by Method 7470A in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW846, 3rd edition.

1. Holding Time

Analysis met holding time criteria.

2. Method Blank

Method blank was free of contamination at the reporting limit.

3. Lab Control Sample/Lab Control Sample Duplicate

Lab control results were within QC limit.

4. Serial Dilution / Post-Analytical Spike

Sample K099-07 was analyzed for serial dilution and post-analytical spike. All QC requirements were met.

5. Matrix Spike/Matrix Spike Duplicate

No MS/MSD sample was designated in this SDG.

6. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criteria were met.

All samples were analyzed at DF 20 due to matrix interference from high salt level.

METHOD 7470A
DISSOLVED MERCURY BY COLD VAPOR

Client : TETRA TECH FW, INC.
Project : MFA, SITE 1, CTO 86
Batch No. : 04K094

Matrix : WATER
Instrument ID : 11047

| SAMPLE ID | EMAX SAMPLE ID | RESULTS (ug/L) | DLF | MOIST | RL (ug/L) | MDL (ug/L) | Analysis DATE/TIME | Extraction DATE/TIME | LFID | CAL REF | PREP BATCH | Collection DATE/TIME | Received DATE/TIME |
|-----------|-------------------|-------------------|-----|-------|--------------|---------------|-----------------------|-------------------------|------------|------------|------------|-------------------------|-----------------------|
| MBLK1W | HGK016MB | ND | 1 | NA | .2 | .1 | 11/18/0416:07 | 11/17/0416:00 | M47K019010 | M47K019008 | HGK016W | NA | 11/17/04 |
| LCS1W | HGK016ML | 4.96 | 1 | NA | .2 | .1 | 11/18/0416:09 | 11/17/0416:00 | M47K019011 | M47K019008 | HGK016W | NA | 11/17/04 |
| LCD1W | HGK016MC | 4.94 | 1 | NA | .2 | .1 | 11/18/0416:11 | 11/17/0416:00 | M47K019012 | M47K019008 | HGK016W | NA | 11/17/04 |
| 86-S1-056 | K094-01 | ND | 20 | NA | 4 | 2 | 11/18/0417:22 | 11/17/0416:00 | M47K019044 | M47K019042 | HGK016W | 11/08/04 | 11/10/04 |
| 86-S1-057 | K094-03 | ND | 20 | NA | 4 | 2 | 11/18/0417:25 | 11/17/0416:00 | M47K019045 | M47K019042 | HGK016W | 11/08/04 | 11/10/04 |
| 86-S1-058 | K094-04 | ND | 20 | NA | 4 | 2 | 11/18/0417:27 | 11/17/0416:00 | M47K019046 | M47K019042 | HGK016W | 11/08/04 | 11/10/04 |
| 86-S1-060 | K094-05 | ND | 20 | NA | 4 | 2 | 11/18/0417:29 | 11/17/0416:00 | M47K019047 | M47K019042 | HGK016W | 11/09/04 | 11/10/04 |
| 86-S1-061 | K094-06 | ND | 20 | NA | 4 | 2 | 11/18/0417:31 | 11/17/0416:00 | M47K019048 | M47K019042 | HGK016W | 11/09/04 | 11/10/04 |
| 86-S1-062 | K094-07 | ND | 20 | NA | 4 | 2 | 11/18/0417:33 | 11/17/0416:00 | M47K019049 | M47K019042 | HGK016W | 11/09/04 | 11/10/04 |

RL: Reporting Limit

Revised Report
7003

COLUMBIA ANALYTICAL SERVICES, INC.

Client: EMAX Laboratories, Inc.
Project: 04K099
Sample Matrix: Water

Service Request No.: K2409068
Date Received: 11/13/04

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of Columbia Analytical Services, Inc. (CAS). This report contains analytical results for samples designated for Tier III validation deliverables including summary forms and all of the associated raw data for each of the analyses. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

Six water samples were received for analysis at Columbia Analytical Services on 11/13/04. No discrepancies were noted upon initial sample inspection. The samples were received in good condition and consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4°C upon receipt at the laboratory.

Metals

Sample Notes and Discussion:

Due to the high salinity of sample matrix, all samples required pre-treatment using reductive precipitation prior to analysis by ICP/MS EPA 200.8. Analysis of Selenium was performed by hydride EPA 7742 due to the saline sample matrix.

Matrix Spike Recovery Exceptions:

The matrix spike recovery of Chromium for Batch QC sample was outside control criteria. Recovery in the Laboratory Control Sample (LCS) was acceptable, which indicates the analytical batch was in control. The matrix spike outlier suggests a potential low bias in this matrix. No further corrective action was appropriate.

The matrix spike recovery of Cobalt for Batch QC sample was outside the CAS control criteria as a result of the variability in the sample results. Variability between replicates was sufficient to bias the percent recoveries outside normal CAS control criteria. The associated QA/QC results (e.g. control sample, calibration standards, etc.) indicate the analysis was in control. Due to sample volume limitations no further corrective action was possible.

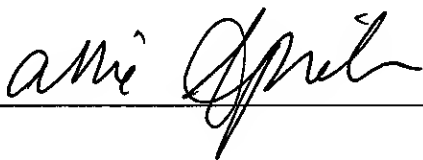
The control criterion for matrix spike recovery of Nickel for Batch QC sample is not applicable. The analyte concentration in the sample was significantly higher than the added spike concentration, preventing accurate evaluation of the spike recovery.

Relative Percent Difference Exceptions:

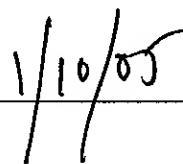
The Relative Percent Difference (RPD) for the replicate analysis of Cobalt in Batch QC sample was outside the normal CAS control limits. Additional analysis of the associated field samples could not be performed because insufficient sample remained for testing. No further corrective action was possible. The data is flagged to indicate the problem.

No other anomalies associated with the analysis of these samples were observed.

Approved by



Date



DISSOLVED METALS

-1-

INORGANIC ANALYSIS DATA SHEET

Client: EMAX Laboratories, Inc.

Service Request: K2409068

Project No.: 04K094

Date Collected: 11/08/04

Project Name: NA

Date Received: 11/13/04

Matrix: WATER

Units: µg/L

Basis: • NA

Sample Name: 86-S1-056

Lab Code: K2409068-001 DISS

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|-----------|-----------------|-------|-------|------|----------------|---------------|--------|---|----|
| Aluminum | 6010B | 50 | 50 | 1 | 12/9/04 | 12/12/04 | 50 | U | |
| Antimony | 200.8 | 1.000 | 0.120 | 1 | 12/9/04 | 12/13/04 | 4.220 | | |
| Arsenic | 200.8 | 0.50 | 0.02 | 1 | 12/29/04 | 1/3/05 | 5.75 | | |
| Barium | 200.8 | 1.000 | 0.600 | 1 | 12/9/04 | 12/13/04 | 111 | | |
| Beryllium | 200.8 | 0.020 | 0.001 | 1 | 12/29/04 | 1/3/05 | 0.005 | B | |
| Cadmium | 200.8 | 0.020 | 0.003 | 1 | 12/29/04 | 1/3/05 | 0.003 | B | |
| Chromium | 200.8 | 0.20 | 0.04 | 1 | 12/29/04 | 1/3/05 | 0.25 | | N |
| Cobalt | 200.8 | 0.020 | 0.002 | 1 | 12/29/04 | 1/3/05 | 8.680 | | *N |
| Copper | 200.8 | 0.10 | 0.01 | 1 | 12/29/04 | 1/3/05 | 0.30 | | |
| Lead | 200.8 | 0.020 | 0.009 | 1 | 12/29/04 | 1/3/05 | 0.017 | B | |
| Nickel | 200.8 | 0.20 | 0.02 | 1 | 12/29/04 | 1/3/05 | 19.2 | | |
| Selenium | 7742 | 1.0 | 0.3 | 2 | 12/9/04 | 1/6/05 | 0.7 | B | |
| Silver | 200.8 | 0.020 | 0.005 | 1 | 12/29/04 | 1/3/05 | 0.092 | | |
| Thallium | 200.8 | 0.020 | 0.001 | 1 | 12/29/04 | 1/3/05 | 0.037 | | |
| Vanadium | 6010B | 10.0 | 6.0 | 1 | 12/9/04 | 12/12/04 | 6.0 | U | |
| Zinc | 200.8 | 0.50 | 0.02 | 1 | 12/29/04 | 1/3/05 | 4.17 | | |

* Solids: 0.0

Comments:

DISSOLVED METALS

-1-

INORGANIC ANALYSIS DATA SHEET

Client: EMAX Laboratories, Inc.

Service Request: K2409068

Project No.: 04K094

Date Collected: 11/08/04

Project Name: NA

Date Received: 11/13/04

Matrix: WATER

Units: µg/L

Basis: NA

Sample Name: 86-S1-057

Lab Code: K2409068-002 DISS

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|-----------|-----------------|-------|-------|------|----------------|---------------|--------|---|----|
| Aluminum | 6010B | 50 | 50 | 1 | 12/9/04 | 12/12/04 | 50 | U | |
| Antimony | 200.8 | 1.000 | 0.120 | 1 | 12/9/04 | 12/13/04 | 4.890 | | |
| Arsenic | 200.8 | 1.00 | 0.04 | 2 | 12/29/04 | 1/3/05 | 7.96 | | |
| Barium | 200.8 | 1.000 | 0.600 | 1 | 12/9/04 | 12/13/04 | 126 | | |
| Beryllium | 200.8 | 0.040 | 0.002 | 2 | 12/29/04 | 1/3/05 | 0.015 | B | |
| Cadmium | 200.8 | 0.040 | 0.006 | 2 | 12/29/04 | 1/3/05 | 0.006 | U | |
| Chromium | 200.8 | 0.40 | 0.08 | 2 | 12/29/04 | 1/3/05 | 0.51 | | N |
| Cobalt | 200.8 | 0.040 | 0.004 | 2 | 12/29/04 | 1/3/05 | 4.360 | | *N |
| Copper | 200.8 | 0.20 | 0.02 | 2 | 12/29/04 | 1/3/05 | 0.13 | B | |
| Lead | 200.8 | 0.040 | 0.018 | 2 | 12/29/04 | 1/3/05 | 0.018 | U | |
| Nickel | 200.8 | 0.20 | 0.02 | 1 | 12/29/04 | 1/3/05 | 7.60 | | |
| Selenium | 7742 | 1.0 | 0.3 | 2 | 12/9/04 | 1/6/05 | 0.3 | U | |
| Silver | 200.8 | 0.040 | 0.010 | 2 | 12/29/04 | 1/3/05 | 0.010 | U | |
| Thallium | 200.8 | 0.040 | 0.001 | 2 | 12/29/04 | 1/3/05 | 0.001 | U | |
| Vanadium | 6010B | 10.0 | 6.0 | 1 | 12/9/04 | 12/12/04 | 6.0 | U | |
| Zinc | 200.8 | 1.00 | 0.04 | 2 | 12/29/04 | 1/3/05 | 22.7 | | |

% Solids: 0.0

Comments:

DISSOLVED METALS
-1-
INORGANIC ANALYSIS DATA SHEET

Client: EMAX Laboratories, Inc.

Service Request: K2409068

Project No.: 04K094

Date Collected: 11/08/04

Project Name: NA

Date Received: 11/13/04

Matrix: WATER

Units: µg/L

Basis: .NA

Sample Name: 86-S1-058

Lab Code: K2409068-003 DISS

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|-----------|-----------------|-------|-------|------|----------------|---------------|--------|---|----|
| Aluminum | 6010B | 50 | 50 | 1 | 12/9/04 | 12/12/04 | 50 | U | |
| Antimony | 200.8 | 1.000 | 0.120 | 1 | 12/9/04 | 12/13/04 | 4.820 | | |
| Arsenic | 200.8 | 0.50 | 0.02 | 1 | 12/29/04 | 1/3/05 | 2.82 | | |
| Barium | 200.8 | 1.000 | 0.600 | 1 | 12/9/04 | 12/13/04 | 81.3 | | |
| Beryllium | 200.8 | 0.020 | 0.001 | 1 | 12/29/04 | 1/3/05 | 0.003 | B | |
| Cadmium | 200.8 | 0.020 | 0.003 | 1 | 12/29/04 | 1/3/05 | 0.421 | | |
| Chromium | 200.8 | 0.20 | 0.04 | 1 | 12/29/04 | 1/3/05 | 0.17 | B | N |
| Cobalt | 200.8 | 0.020 | 0.002 | 1 | 12/29/04 | 1/3/05 | 11.0 | | *N |
| Copper | 200.8 | 0.10 | 0.01 | 1 | 12/29/04 | 1/3/05 | 0.38 | | |
| Lead | 200.8 | 0.020 | 0.009 | 1 | 12/29/04 | 1/3/05 | 0.039 | | |
| Nickel | 200.8 | 0.20 | 0.02 | 1 | 12/29/04 | 1/3/05 | 12.7 | | |
| Selenium | 7742 | 1.0 | 0.3 | 2 | 12/9/04 | 1/6/05 | 0.3 | U | |
| Silver | 200.8 | 0.020 | 0.005 | 1 | 12/29/04 | 1/3/05 | 0.011 | B | |
| Thallium | 200.8 | 0.020 | 0.001 | 1 | 12/29/04 | 1/3/05 | 0.062 | | |
| Vanadium | 6010B | 10.0 | 6.0 | 1 | 12/9/04 | 12/12/04 | 6.0 | U | |
| Zinc | 200.8 | 0.50 | 0.02 | 1 | 12/29/04 | 1/3/05 | 37.4 | | |

* Solids: 0.0

Comments:

DISSOLVED METALS

-1-

INORGANIC ANALYSIS DATA SHEET

Client: EMAX Laboratories, Inc.

Service Request: K2409068

Project No.: 04K094

Date Collected: 11/09/04

Project Name: NA

Date Received: 11/13/04

Matrix: WATER

Units: µg/L

Basis: . NA

Sample Name: 86-S1-060

Lab Code: K2409068-004 DISS

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|-----------|-----------------|-------|-------|------|----------------|---------------|--------|---|----|
| Aluminum | 6010B | 50 | 50 | 1 | 12/9/04 | 12/12/04 | 50 | U | |
| Antimony | 200.8 | 1.000 | 0.120 | 1 | 12/9/04 | 12/13/04 | 4.490 | | |
| Arsenic | 200.8 | 1.00 | 0.04 | 2 | 12/29/04 | 1/3/05 | 7.53 | | |
| Barium | 200.8 | 1.000 | 0.600 | 1 | 12/9/04 | 12/13/04 | 147 | | |
| Beryllium | 200.8 | 0.040 | 0.002 | 2 | 12/29/04 | 1/3/05 | 0.007 | B | |
| Cadmium | 200.8 | 0.040 | 0.006 | 2 | 12/29/04 | 1/3/05 | 0.014 | B | |
| Chromium | 200.8 | 0.40 | 0.08 | 2 | 12/29/04 | 1/3/05 | 0.44 | | N |
| Cobalt | 200.8 | 0.040 | 0.004 | 2 | 12/29/04 | 1/3/05 | 6.090 | | *N |
| Copper | 200.8 | 0.20 | 0.02 | 2 | 12/29/04 | 1/3/05 | 0.23 | | |
| Lead | 200.8 | 0.040 | 0.018 | 2 | 12/29/04 | 1/3/05 | 0.145 | | |
| Nickel | 200.8 | 0.20 | 0.02 | 1 | 12/29/04 | 1/3/05 | 7.60 | | |
| Selenium | 7742 | 1.0 | 0.3 | 2 | 12/9/04 | 1/6/05 | 0.3 | U | |
| Silver | 200.8 | 0.040 | 0.010 | 2 | 12/29/04 | 1/3/05 | 0.012 | B | |
| Thallium | 200.8 | 0.040 | 0.001 | 2 | 12/29/04 | 1/3/05 | 0.001 | U | |
| Vanadium | 6010B | 10.0 | 6.0 | 1 | 12/9/04 | 12/12/04 | 6.0 | U | |
| Zinc | 200.8 | 1.00 | 0.04 | 2 | 12/29/04 | 1/3/05 | 29.5 | | |

% Solids: 0.0

Comments:

DISSOLVED METALS
-1-
INORGANIC ANALYSIS DATA SHEET

Client: EMAX Laboratories, Inc.

Service Request: K2409068

Project No.: 04K094

Date Collected: 11/08/04

Project Name: NA

Date Received: 11/13/04

Matrix: WATER

Units: µg/L

Basis: NA

Sample Name: 86-S1-058

Lab Code: K2409068-003 DISS

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|-----------|-----------------|-------|-------|------|----------------|---------------|--------|---|----|
| Aluminum | 6010B | 50 | 50 | 1 | 12/9/04 | 12/12/04 | 50 | U | |
| Antimony | 200.8 | 1.000 | 0.120 | 1 | 12/9/04 | 12/13/04 | 4.820 | | |
| Arsenic | 200.8 | 0.50 | 0.02 | 1 | 12/29/04 | 1/3/05 | 2.82 | | |
| Barium | 200.8 | 1.000 | 0.600 | 1 | 12/9/04 | 12/13/04 | 81.3 | | |
| Beryllium | 200.8 | 0.020 | 0.001 | 1 | 12/29/04 | 1/3/05 | 0.003 | B | |
| Cadmium | 200.8 | 0.020 | 0.003 | 1 | 12/29/04 | 1/3/05 | 0.421 | | |
| Chromium | 200.8 | 0.20 | 0.04 | 1 | 12/29/04 | 1/3/05 | 0.17 | B | N |
| Cobalt | 200.8 | 0.020 | 0.002 | 1 | 12/29/04 | 1/3/05 | 11.0 | | *N |
| Copper | 200.8 | 0.10 | 0.01 | 1 | 12/29/04 | 1/3/05 | 0.38 | | |
| Lead | 200.8 | 0.020 | 0.009 | 1 | 12/29/04 | 1/3/05 | 0.039 | | |
| Nickel | 200.8 | 0.20 | 0.02 | 1 | 12/29/04 | 1/3/05 | 12.7 | | |
| Selenium | 7742 | 1.0 | 0.3 | 2 | 12/9/04 | 1/6/05 | 0.3 | U | |
| Silver | 200.8 | 0.020 | 0.005 | 1 | 12/29/04 | 1/3/05 | 0.011 | B | |
| Thallium | 200.8 | 0.020 | 0.001 | 1 | 12/29/04 | 1/3/05 | 0.062 | | |
| Vanadium | 6010B | 10.0 | 6.0 | 1 | 12/9/04 | 12/12/04 | 6.0 | U | |
| Zinc | 200.8 | 0.50 | 0.02 | 1 | 12/29/04 | 1/3/05 | 37.4 | | |

% Solids: 0.0

Comments:

DISSOLVED METALS

-1-

INORGANIC ANALYSIS DATA SHEET

Client: EMAX Laboratories, Inc.

Service Request: K2409068

Project No.: 04K094

Date Collected: 11/09/04

Project Name: NA

Date Received: 11/13/04

Matrix: WATER

Units: µg/L

Basis: . NA

Sample Name: 86-S1-061

Lab Code: K2409068-005 DISS

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|-----------|-----------------|-------|-------|------|----------------|---------------|--------|---|----|
| Aluminum | 6010B | 50 | 50 | 1 | 12/9/04 | 12/12/04 | 50 | U | |
| Antimony | 200.8 | 1.000 | 0.120 | 1 | 12/9/04 | 12/13/04 | 4.940 | | |
| Arsenic | 200.8 | 0.50 | 0.02 | 1 | 12/29/04 | 1/3/05 | 3.31 | | |
| Barium | 200.8 | 1.000 | 0.600 | 1 | 12/9/04 | 12/13/04 | 60.5 | | |
| Beryllium | 200.8 | 0.020 | 0.001 | 1 | 12/29/04 | 1/3/05 | 0.005 | B | |
| Cadmium | 200.8 | 0.020 | 0.003 | 1 | 12/29/04 | 1/3/05 | 0.041 | | |
| Chromium | 200.8 | 0.20 | 0.04 | 1 | 12/29/04 | 1/3/05 | 0.26 | | N |
| Cobalt | 200.8 | 0.020 | 0.002 | 1 | 12/29/04 | 1/3/05 | 3.280 | | *N |
| Copper | 200.8 | 0.10 | 0.01 | 1 | 12/29/04 | 1/3/05 | 0.24 | | |
| Lead | 200.8 | 0.020 | 0.009 | 1 | 12/29/04 | 1/3/05 | 0.012 | B | |
| Nickel | 200.8 | 0.20 | 0.02 | 1 | 12/29/04 | 1/3/05 | 8.35 | | |
| Selenium | 7742 | 1.0 | 0.3 | 2 | 12/9/04 | 1/6/05 | 0.3 | U | |
| Silver | 200.8 | 0.020 | 0.005 | 1 | 12/29/04 | 1/3/05 | 0.005 | U | |
| Thallium | 200.8 | 0.020 | 0.001 | 1 | 12/29/04 | 1/3/05 | 0.050 | | |
| Vanadium | 6010B | 10.0 | 6.0 | 1 | 12/9/04 | 12/12/04 | 6.0 | U | |
| Zinc | 200.8 | 5.00 | 0.20 | 10 | 12/29/04 | 1/3/05 | 68.6 | | |

* Solids: 0.0

Comments:

DISSOLVED METALS

-1-

INORGANIC ANALYSIS DATA SHEET

Client: EMAX Laboratories, Inc.

Service Request: K2409068

Project No.: 04K094

Date Collected: 11/09/04

Project Name: NA

Date Received: 11/13/04

Matrix: WATER

Units: µg/L

Basis: .NA

Sample Name: 86-S1-062

Lab Code: K2409068-006 DISS

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|-----------|-----------------|-------|-------|------|----------------|---------------|--------|---|----|
| Aluminum | 6010B | 50 | 50 | 1 | 12/9/04 | 12/12/04 | 50.2 | | |
| Antimony | 200.8 | 1.000 | 0.120 | 1 | 12/9/04 | 12/13/04 | 1.940 | | |
| Arsenic | 200.8 | 0.50 | 0.02 | 1 | 12/29/04 | 1/3/05 | 2.20 | | |
| Barium | 200.8 | 1.000 | 0.600 | 1 | 12/9/04 | 12/13/04 | 1160 | | |
| Beryllium | 200.8 | 0.020 | 0.001 | 1 | 12/29/04 | 1/3/05 | 0.022 | | |
| Cadmium | 200.8 | 0.020 | 0.003 | 1 | 12/29/04 | 1/3/05 | 0.003 | U | |
| Chromium | 200.8 | 0.20 | 0.04 | 1 | 12/29/04 | 1/3/05 | 6.19 | | N |
| Cobalt | 200.8 | 0.020 | 0.002 | 1 | 12/29/04 | 1/3/05 | 0.101 | | *N |
| Copper | 200.8 | 0.10 | 0.01 | 1 | 12/29/04 | 1/3/05 | 0.37 | | |
| Lead | 200.8 | 0.020 | 0.009 | 1 | 12/29/04 | 1/3/05 | 0.213 | | |
| Nickel | 200.8 | 0.20 | 0.02 | 1 | 12/29/04 | 1/3/05 | 21.3 | | |
| Selenium | 7742 | 1.0 | 0.3 | 2 | 12/9/04 | 1/6/05 | 0.3 | U | |
| Silver | 200.8 | 0.020 | 0.005 | 1 | 12/29/04 | 1/3/05 | 0.005 | U | |
| Thallium | 200.8 | 0.020 | 0.001 | 1 | 12/29/04 | 1/3/05 | 0.001 | B | |
| Vanadium | 6010B | 10.0 | 6.0 | 1 | 12/9/04 | 12/12/04 | 6.0 | U | |
| Zinc | 200.8 | 50.00 | 2.00 | 100 | 12/29/04 | 1/3/05 | 1320 | | |

* Solids: 0.0

Comments:

DISSOLVED METALS

-1-

INORGANIC ANALYSIS DATA SHEET

Client: EMAX Laboratories, Inc.

Service Request: K2409068

Project No.: 04K094

Date Collected: 11/09/04

Project Name: NA

Date Received: 11/13/04

Matrix: WATER

Units: µg/L

Basis: NA

Sample Name: 86-S1-061

Lab Code: K2409068-005 DISS

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|-----------|-----------------|-------|-------|------|----------------|---------------|--------|---|----|
| Aluminum | 6010B | 50 | 50 | 1 | 12/9/04 | 12/12/04 | 50 | U | |
| Antimony | 200.8 | 1.000 | 0.120 | 1 | 12/9/04 | 12/13/04 | 4.940 | | |
| Arsenic | 200.8 | 0.50 | 0.02 | 1 | 12/29/04 | 1/3/05 | 3.31 | | |
| Barium | 200.8 | 1.000 | 0.600 | 1 | 12/9/04 | 12/13/04 | 60.5 | | |
| Beryllium | 200.8 | 0.020 | 0.001 | 1 | 12/29/04 | 1/3/05 | 0.005 | B | |
| Cadmium | 200.8 | 0.020 | 0.003 | 1 | 12/29/04 | 1/3/05 | 0.041 | | |
| Chromium | 200.8 | 0.20 | 0.04 | 1 | 12/29/04 | 1/3/05 | 0.26 | | N |
| Cobalt | 200.8 | 0.020 | 0.002 | 1 | 12/29/04 | 1/3/05 | 3.280 | | *N |
| Copper | 200.8 | 0.10 | 0.01 | 1 | 12/29/04 | 1/3/05 | 0.24 | | |
| Lead | 200.8 | 0.020 | 0.009 | 1 | 12/29/04 | 1/3/05 | 0.012 | B | |
| Nickel | 200.8 | 0.20 | 0.02 | 1 | 12/29/04 | 1/3/05 | 8.35 | | |
| Selenium | 7742 | 1.0 | 0.3 | 2 | 12/9/04 | 1/6/05 | 0.3 | U | |
| Silver | 200.8 | 0.020 | 0.005 | 1 | 12/29/04 | 1/3/05 | 0.005 | U | |
| Thallium | 200.8 | 0.020 | 0.001 | 1 | 12/29/04 | 1/3/05 | 0.050 | | |
| Vanadium | 6010B | 10.0 | 6.0 | 1 | 12/9/04 | 12/12/04 | 6.0 | U | |
| Zinc | 200.8 | 5.00 | 0.20 | 10 | 12/29/04 | 1/3/05 | 68.6 | | |

% Solids: 0.0

Comments:

DISSOLVED METALS

-1-

INORGANIC ANALYSIS DATA SHEET

Client: EMAX Laboratories, Inc.

Service Request: K2409068

Project No.: 04K094

Date Collected: NA

Project Name: NA

Date Received: NA

Matrix: WATER

Units: µg/L

Basis: .NA

Sample Name: Method Blank

Lab Code: K2409068-MB

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|-----------|-----------------|-------|-------|------|----------------|---------------|--------|---|----|
| Aluminum | 6010B | 50 | 50 | 1 | 12/9/04 | 12/12/04 | 50 | U | |
| Antimony | 200.8 | 1.000 | 0.120 | 1 | 12/9/04 | 12/13/04 | 0.316 | B | |
| Arsenic | 200.8 | 0.50 | 0.02 | 1 | 12/29/04 | 1/3/05 | 0.02 | U | |
| Barium | 200.8 | 1.000 | 0.600 | 1 | 12/9/04 | 12/13/04 | 0.600 | U | |
| Beryllium | 200.8 | 0.020 | 0.001 | 1 | 12/29/04 | 1/3/05 | 0.001 | U | |
| Cadmium | 200.8 | 0.020 | 0.003 | 1 | 12/29/04 | 1/3/05 | 0.003 | U | |
| Chromium | 200.8 | 0.20 | 0.04 | 1 | 12/29/04 | 1/3/05 | 0.04 | U | N |
| Cobalt | 200.8 | 0.020 | 0.002 | 1 | 12/29/04 | 1/3/05 | 0.002 | U | *N |
| Copper | 200.8 | 0.10 | 0.01 | 1 | 12/29/04 | 1/3/05 | 0.01 | U | |
| Lead | 200.8 | 0.020 | 0.009 | 1 | 12/29/04 | 1/3/05 | 0.009 | U | |
| Nickel | 200.8 | 0.20 | 0.02 | 1 | 12/29/04 | 1/3/05 | 0.02 | U | |
| Selenium | 7742 | 1.0 | 0.3 | 2 | 12/9/04 | 1/6/05 | 0.3 | U | |
| Silver | 200.8 | 0.020 | 0.005 | 1 | 12/29/04 | 1/3/05 | 0.005 | U | |
| Thallium | 200.8 | 0.020 | 0.001 | 1 | 12/29/04 | 1/3/05 | 0.001 | U | |
| Vanadium | 6010B | 10.0 | 6.0 | 1 | 12/9/04 | 12/12/04 | 6.0 | U | |
| Zinc | 200.8 | 0.50 | 0.02 | 1 | 12/29/04 | 1/3/05 | 0.02 | U | |

% Solids: 0.0

Comments:

**Laboratory Data Consultants, Inc.
Data Validation Report**

Project/Site Name: Moffett Air Field, Site 1, CTO 86
Collection Date: November 8 through November 9, 2004
LDC Report Date: January 11, 2005
Matrix: Water
Parameters: Metals
Validation Level: EPA Level III & IV
Laboratory: EMAX Laboratories, Inc. & Columbia Analytical Services, Inc.

Sample Delivery Group (SDG): 04K094/K2409068

Sample Identification

86-S1-056
86-S1-057
86-S1-058**
86-S1-060
86-S1-061
86-S1-062

**Indicates sample underwent EPA Level IV review

Introduction

This data review covers 6 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Methods 6010B and 7000 and EPA Method 200.8 for Metals. The metals analyzed were Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, Copper, Lead, Nickel, Selenium, Silver, Thallium, Vanadium, and Zinc.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (February 1994) as there are no current guidelines for the methods stated above.

A table summarizing all data qualification flags is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from specified protocols or is of technical advisory nature.

Blanks are summarized in Section III.

Field duplicates are summarized in Section XIII.

Samples indicated by a double asterisk on the front cover underwent a EPA Level IV review. A EPA Level III review was performed on all of the other samples. Raw data were not evaluated for the samples reviewed by Level III criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UU Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

An initial calibration was performed.

The frequency and analysis criteria of the initial calibration verification (ICV) and continuing calibration verification (CCV) were met.

III. Blanks

Method blanks were reviewed for each matrix as applicable.

Data qualification by the initial, continuing and preparation blanks (ICB/CCB/PBs) was based on the maximum contaminant concentration in the ICB/CCB/PBs in the analysis of each analyte. No contaminant concentrations were found in the initial, continuing and preparation blanks with the following exceptions:

| Method Blank ID | Analyte | Maximum Concentration | Associated Samples |
|-----------------|--------------------------------------------------------|---------------------------------------------------------------|------------------------------------|
| PB (prep blank) | Antimony | 0.316 ug/L | All samples in SDG 04K094/K2409068 |
| ICB/CCB | Antimony Nickel Selenium Thallium Vanadium | 0.038 ug/L 0.31 ug/L 0.16 ug/L 0.03 ug/L 7.2 ug/L | All samples in SDG 04K094/K2409068 |

Sample concentrations were compared to the maximum contaminant concentrations detected in the ICB/CCB/PBs. The sample concentrations were either not detected or were significantly greater (>5X blank contaminants) than the concentrations found in the associated method blanks with the following exceptions:

| Sample | Analyte | Reported Concentration | Modified Final Concentration |
|----------------|----------|------------------------|------------------------------|
| 86-S1-056 (2X) | Selenium | 0.7 ug/L | 0.7U ug/L |
| 86-S1-062 | Antimony | 1.94 ug/L | 1.94U ug/L |

IV. ICP Interference Check Sample (ICS) Analysis

The frequency of analysis was met.

The criteria for analysis were met.

V. Matrix Spike Analysis

Matrix spike (MS) analyses were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits with the following exceptions:

| Spike ID (Associated Samples) | Analyte | %R (Limits) | Flag | A or P |
|--------------------------------------------------------|----------------------------------------------------|-------------------------------------------------------------------------|-----------------------------------------|--------|
| 86-S1-068MS (All samples in SDG 04K094/K2409068) | Arsenic Beryllium Chromium Copper Zinc | 43 (75-125) 59 (75-125) 45 (75-125) 72 (75-125) 49 (75-125) | J (all detects) UJ (all non-detects) | A |
| 86-S1-068MS (All samples in SDG 04K094/K2409068) | Cobalt | 150 (75-125) | J (all detects) | A |

VI. Duplicate Sample Analysis

Duplicate (DUP) sample analyses were reviewed for each matrix as applicable. Results were within QC limits with the following exceptions:

| DUP ID (Associated Samples) | Analyte | RPD (Limits) | Difference (Limits) | Flag | A or P |
|---------------------------------------------------------|---------|------------------|---------------------|-----------------------------------------|--------|
| 86-S1-068DUP (All samples in SDG 04K094/K2409068) | Cobalt | 79 (≤ 30) | - | J (all detects) UJ (all non-detects) | A |

VII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

VIII. Internal Standards

All internal standard percent recoveries (%R) were within QC limits for samples on which a EPA Level IV review was performed with the following exceptions:

| Sample | Internal Standard | %R (Limits) | Analyte | Flag | A or P |
|------------------------------------|---------------------------------------------------------------------|----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| 86-S1-058** (digested 12/13/04) | Indium-115 | 158.6 (60-125) | Antimony Barium | J (all detects) J (all detects) | A |
| 86-S1-058** (digested 1/3/05) | Lithium-6 Scandium-45 Nickel-61 Indium-115 Lutetium-175 | 150.4 (60-125) 130.8 (60-125) 154.7 (60-125) 138.9 (60-125) 130.7 (60-125) | Beryllium Cadmium Chromium Cobalt Copper Lead Nickel Silver Thallium Zinc Arsenic | J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) | A |

Raw data were not evaluated for the samples reviewed by Level III criteria.

IX. Furnace Atomic Absorption QC

All graphite furnace atomic absorption QC were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for samples reviewed by Level III criteria.

X. ICP Serial Dilution

Although ICP serial dilution analysis was not required by the method, it was performed by the laboratory. The analysis criteria were met.

XI. Sample Result Verification

All sample result verifications met validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for samples reviewed by Level III criteria.

XII. Overall Assessment of Data

Data flags have been summarized at the end of this report.

XIII. Field Duplicates

No field duplicates were identified in this SDG.

XIV. Field Blanks

No field blanks were identified in this SDG.

Moffett Air Field, Site 1, CTO 86
Metals - Data Qualification Summary - SDG 04K094/K2409068

| SDG | Sample | Analyte | Flag | A or P | Reason |
|---------------------|------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|---------------------------------|
| 04K094/ K2409068 | 86-S1-056 86-S1-057 86-S1-058** 86-S1-060 86-S1-061 86-S1-062 | Arsenic Beryllium Chromium Copper Zinc | J (all detects) UJ (all non-detects) | A | Matrix spike analysis (%R) |
| 04K094/ K2409068 | 86-S1-056 86-S1-057 86-S1-058** 86-S1-060 86-S1-061 86-S1-062 | Cobalt | J (all detects) | A | Matrix spike analysis (%R) |
| 04K094/ K2409068 | 86-S1-056 86-S1-057 86-S1-058** 86-S1-060 86-S1-061 86-S1-062 | Cobalt | J (all detects) UJ (all non-detects) | A | Duplicate sample analysis (RPD) |
| 04K094/ K2409068 | 86-S1-058** | Antimony Barium Beryllium Cadmium Chromium Cobalt Copper Lead Nickel Silver Thallium Zinc Arsenic | J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) | A | Internal standards (%R) |

Moffett Air Field, Site 1, CTO 86
Metals - Laboratory Blank Data Qualification Summary - SDG 04K094/K2409068

| SDG | Sample | Analyte | Modified Final Concentration | A or P |
|---------------------|----------------|----------|------------------------------|--------|
| 04K094/ K2409068 | 86-S1-056 (2X) | Selenium | 0.7U ug/L | A |
| 04K094/ K2409068 | 86-S1-062 | Antimony | 1.94U ug/L | A |

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Moffett Airfield, Site 1, CTO 86
Collection Date: November 8 through November 9, 2004
LDC Report Date: January 11, 2005
Matrix: Water
Parameters: Mercury
Validation Level: EPA Level III & IV
Laboratory: EMAX Laboratories, Inc.
Sample Delivery Group (SDG): 04K094

Sample Identification

86-S1-056
86-S1-057
86-S1-058**
86-S1-060
86-S1-061
86-S1-062

**Indicates sample underwent EPA Level IV review

Introduction

This data review covers 6 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 7470A for Mercury.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (February 1994) as there are no current guidelines for the method stated above.

A table summarizing all data qualification flags is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from specified protocols or is of technical advisory nature.

Blanks are summarized in Section III.

Field duplicates are summarized in Section XIII.

Samples indicated by a double asterisk on the front cover underwent a EPA Level IV review. A EPA Level III review was performed on all of the other samples. Raw data were not evaluated for the samples reviewed by Level III criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UU Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

An initial calibration was performed.

The frequency and analysis criteria of the initial calibration verification (ICV) and continuing calibration verification (CCV) were met.

III. Blanks

Method blanks were reviewed for each matrix as applicable.

Data qualification by the initial, continuing and preparation blanks (ICB/CCB/PBs) was based on the maximum contaminant concentration in the ICB/CCB/PBs in the analysis of each analyte. No contaminant concentrations were found in the initial, continuing and preparation blanks.

IV. ICP Interference Check Sample (ICS) Analysis

ICP interference check sample was not required by the method.

V. Matrix Spike Analysis

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

| Spike ID (Associated Samples) | Analyte | MS (%R) (Limits) | MSD (%R) (Limits) | RPD (Limits) | Flag | A or P |
|---------------------------------------------------|---------|---------------------|----------------------|-----------------|-----------------------------------------|--------|
| 86-S1-068MS/MSD (All samples in SDG 04K094) | Mercury | 67 (75-125) | 72 (75-125) | - | J (all detects) UJ (all non-detects) | A |

VI. Duplicate Sample Analysis

The laboratory has indicated that there were no duplicate (DUP) analyses specified for the samples in this SDG, and therefore duplicate analyses were not performed for this SDG.

VII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Internal Standards

ICP-MS was not utilized in this SDG.

IX. Furnace Atomic Absorption QC

Graphite furnace atomic absorption was not utilized in this SDG.

X. ICP Serial Dilution

ICP serial dilution was not required by the method.

XI. Sample Result Verification

All sample result verifications met validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XII. Overall Assessment of Data

Data flags have been summarized at the end of this report.

XIII. Field Duplicates

No field duplicates were identified in this SDG.

XIV. Field Blanks

No field blanks were identified in this SDG.

Moffett Airfield, Site 1, CTO 86
Mercury - Data Qualification Summary - SDG 04K094

| SDG | Sample | Analyte | Flag | A or P | Reason |
|--------|------------------------------------------------------------------------------|---------|-----------------------------------------|--------|----------------------------------------------|
| 04K094 | 86-S1-056 86-S1-057 86-S1-058** 86-S1-060 86-S1-061 86-S1-062 | Mercury | J (all detects) UJ (all non-detects) | A | Matrix spike/Matrix spike duplicates (%R) |

Moffett Airfield, Site 1, CTO 86
Mercury - Laboratory Blank Data Qualification Summary - SDG 04K094

No Sample Data Qualified in this SDG

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Moffett Airfield, MFA, Site 1, CTO 85
Collection Date: November 8 through November 9, 2004
LDC Report Date: January 11, 2005
Matrix: Water
Parameters: Volatiles
Validation Level: EPA Level III & IV
Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 04K094

Sample Identification

86-S1-056
86-S1-069
86-S1-057
86-S1-058**
86-S1-060
86-S1-061
86-S1-062

**Indicates sample underwent EPA Level IV review

Introduction

This data review covers 7 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8260B for Volatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XVI.

Samples indicated by a double asterisk on the front cover underwent a EPA Level IV review. A EPA Level III review was performed on all of the other samples. Raw data were not evaluated for the samples reviewed by Level III criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UU Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

The mean percent relative standard deviation (%RSD) for all compounds was less than or equal to 15.0% and less than or equal to 30.0% for selected individual compounds.

A curve fit, based on the initial calibration, was established for quantitation. The coefficient of determination (r^2) was greater than or equal to 0.990 .

Average relative response factors (RRF) for all system performance check compounds (SPCCs) were within method criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

For the purposes of technical evaluation, all compounds were evaluated against the 25.0% (%D) National Functional Guideline criteria. Unless noted above, all compounds were within the validation criteria with the following exceptions:

| Date | Compound | %D | Associated Samples | Flag | A or P |
|----------|---------------------------|------|---------------------------|-----------------------------------------------------------------|--------|
| 11/19/04 | 4-Methyl-2-pentanone | 26.9 | All samples in SDG 04K094 | J (all detects) | A |
| | trans-1,3-Dichloropropene | 25.2 | | UJ (all non-detects) J (all detects) UJ (all non-detects) | |

Initial calibration verification (ICV) percent differences (%D) were less than or equal to 20.0% for all compounds.

All of the continuing calibration RRF values for all system performance check compounds (SPCCs) were within method criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No volatile contaminants were found in the method blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XII. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XV. Overall Assessment

Data flags have been summarized at the end of the report.

XVI. Field Duplicates

No field duplicates were identified in this SDG.

XVII. Field Blanks

Sample 86-S1-069 was identified as a trip blank. No volatile contaminants were found in this blank.

Moffett Airfield, MFA, Site 1, CTO 85
Volatiles - Data Qualification Summary - SDG 04K094

| SDG | Sample | Compound | Flag | A or P | Reason |
|--------|-------------|---------------------------|----------------------|--------|-----------------------------|
| 04K094 | 86-S1-056 | 4-Methyl-2-pentanone | J (all detects) | A | Continuing calibration (%D) |
| | 86-S1-069 | | UJ (all non-detects) | | |
| | 86-S1-057 | trans-1,3-Dichloropropene | J (all detects) | | |
| | 86-S1-058** | | UJ (all non-detects) | | |
| | 86-S1-060 | | | | |
| | 86-S1-061 | | | | |
| | 86-S1-062 | | | | |

Moffett Airfield, MFA, Site 1, CTO 85
Volatiles - Laboratory Blank Data Qualification Summary - SDG 04K094

No Sample Data Qualified in this SDG

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Moffett Airfield, MFA, Site 1, CTO 85
Collection Date: November 8 through November 9, 2004
LDC Report Date: January 11, 2005
Matrix: Water
Parameters: Semivolatiles
Validation Level: EPA Level III & IV
Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 04K094

Sample Identification

86-S1-056
86-S1-057
86-S1-058**
86-S1-060
86-S1-061
86-S1-062

**Indicates sample underwent EPA Level IV review

Introduction

This data review covers 6 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8270C for Semivolatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XVI.

Samples indicated by a double asterisk on the front cover underwent a EPA Level IV review. A EPA Level III review was performed on all of the other samples. Raw data were not evaluated for the samples reviewed by Level III criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UU Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

The mean percent relative standard deviation (%RSD) for all compounds was less than or equal to 15.0% and less than or equal to 30.0% for selected individual compounds.

A curve fit, based on the initial calibration, was established for quantitation. The coefficient of determination (r^2) was greater than or equal to 0.990.

Average relative response factors (RRF) for all system performance check compounds (SPCCs) were within method criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

For the purposes of technical evaluation, all compounds were evaluated against the 25.0% (%D) National Functional Guideline criteria. Unless noted above, all compounds were within the validation criteria.

Initial calibration verification (ICV) percent differences (%D) were less than or equal to 20.0% for all compounds with the following exceptions:

| Date | Compound | %D | Associated Samples | Flag | A or P |
|---------|---------------------------|------|---------------------------|-----------------------------------------|--------|
| 12/2/04 | Hexachlorocyclopentadiene | 23.8 | All samples in SDG 04K094 | J (all detects) UJ (all non-detects) | A |

All of the continuing calibration RRF values for all system performance check compounds (SPCCs) were within method criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No semivolatile contaminants were found in the method blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XII. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XV. Overall Assessment

Data flags have been summarized at the end of the report.

XVI. Field Duplicates

No field duplicates were identified in this SDG.

XVII. Field Blanks

No field blanks were identified in this SDG.

Moffett Airfield, MFA, Site 1, CTO 85
Semivolatiles - Data Qualification Summary - SDG 04K094

| SDG | Sample | Compound | Flag | A or P | Reason |
|--------|------------------------------------------------------------------------------|---------------------------|-----------------------------------------|--------|------------------------------------|
| 04K094 | 86-S1-056 86-S1-057 86-S1-058** 86-S1-060 86-S1-061 86-S1-062 | Hexachlorocyclopentadiene | J (all detects) UJ (all non-detects) | A | Continuing calibration (ICV %D) |

Moffett Airfield, MFA, Site 1, CTO 85
Semivolatiles - Laboratory Blank Data Qualification Summary - SDG 04K094

No Sample Data Qualified in this SDG

**Laboratory Data Consultants, Inc.
Data Validation Report**

Project/Site Name: Moffett Airfield, MFA, Site 1, CTO 86

Collection Date: November 8 through November 9, 2004

LDC Report Date: January 11, 2005

Matrix: Water

Parameters: Chlorinated Pesticides

Validation Level: EPA Level III & IV

Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 04K094

Sample Identification

86-S1-056
86-S1-056RE
86-S1-057
86-S1-057RE
86-S1-058**
86-S1-058RE**
86-S1-060
86-S1-061
86-S1-062

**Indicates sample underwent EPA Level IV review.

Introduction

This data review covers 9 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8081A for Chlorinated Pesticides.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification flags is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XIV.

Samples indicated by a double asterisk on the front cover underwent a EPA Level IV review. A EPA Level III review was performed on all other samples. Raw data were not evaluated for the samples reviewed by Level III criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UU Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met with the following exceptions:

| Sample | Compound | Total Days From Sample Collection Until Extraction | Required Holding Time (in Days) From Sample Collection Until Extraction | Flag | A or P |
|---------------------------------------------|-------------------|----------------------------------------------------|-------------------------------------------------------------------------|-----------------------------------------|--------|
| 86-S1-056RE 86-S1-057RE 86-S1-058RE** | All TCL compounds | 8 | 7 | J (all detects) UJ (all non-detects) | A |

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/ECD Instrument Performance Check

Instrument performance was acceptable unless noted otherwise under initial calibration and continuing calibration sections.

III. Initial Calibration

Initial calibration of single and multicomponent compounds was performed for the primary (quantitation) column and confirmation column as required by this method.

The percent relative standard deviations (%RSD) were less than or equal to 20.0% for all compounds.

Retention time windows were evaluated and considered technically acceptable for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples on which a Level III review was performed.

IV. Continuing Calibration

Continuing calibration was performed at required frequencies.

The percent differences (%D) of calibration factors in continuing standard mixtures were within the 15.0% QC limits.

Initial calibration verification (ICV) percent differences (%D) were less than or equal to 20.0% for all compounds with the following exceptions:

| Date | Compound | %D | Associated Samples | Flag | A or P |
|----------|----------------------------------------------|----------------|-------------------------------------------------|-----------------------------------------|--------|
| 11/15/04 | gamma-Chlordane 4,4'-DDD Endrin ketone | 16 24 17 | 86-S1-056 86-S1-057 86-S1-058** MBLK1W | J (all detects) UJ (all non-detects) | A |

Retention time windows were evaluated and considered technically acceptable for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples on which a Level III review was performed.

The individual 4,4'-DDT and Endrin breakdowns were less than 15.0% .

V. Blanks

Method blanks were reviewed for each matrix as applicable. No chlorinated pesticide contaminants were found in the method blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits with the following exceptions:

| Sample | Column | Surrogate | %R (Limits) | Compound | Flag | A or P |
|-------------|-----------|--------------------|-------------|-------------------|-----------------------------------------|--------|
| 86-S1-056 | RTX-CLPII | Decachlorobiphenyl | 27 (30-130) | All TCL compounds | J (all detects) UJ (all non-detects) | A |
| 86-S1-057 | RTX-CLPII | Decachlorobiphenyl | 10 (30-130) | All TCL compounds | J (all detects) UJ (all non-detects) | A |
| 86-S1-058** | RTX-CLPII | Decachlorobiphenyl | 26 (30-130) | All TCL compounds | J (all detects) UJ (all non-detects) | A |

VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Pesticide Cleanup Checks

a. Florisil Cartridge Check

Florisil cleanup was not required and therefore not performed in this SDG.

b. GPC Calibration

GPC cleanup was not required and therefore not performed in this SDG.

XI. Target Compound Identification

All target compound identifications were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XII. Compound Quantitation and Reported CRQLs

All compound quantitation and CRQLs were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XIII. Overall Assessment of Data

Data flags are summarized at the end of this report.

XIV. Field Duplicates

No field duplicates were identified in this SDG.

XV. Field Blanks

No field blanks were identified in this SDG.

Moffett Airfield, MFA, Site 1, CTO 86

Chlorinated Pesticides - Data Qualification Summary - SDG 04K094

| SDG | Sample | Compound | Flag | A or P | Reason |
|--------|---------------------------------------------|----------------------------------------------|-----------------------------------------|--------|------------------------------------|
| 04K094 | 86-S1-056RE 86-S1-057RE 86-S1-058RE** | All TCL compounds | J (all detects) UJ (all non-detects) | A | Technical holding times |
| 04K094 | 86-S1-056 86-S1-057 86-S1-058** | gamma-Chlordane 4,4'-DDD Endrin ketone | J (all detects) UJ (all non-detects) | A | Continuing calibration (ICV %D) |
| 04K094 | 86-S1-056 86-S1-057 86-S1-058** | All TCL compounds | J (all detects) UJ (all non-detects) | A | Surrogate recovery (%R) |

Moffett Airfield, MFA, Site 1, CTO 86

Chlorinated Pesticides - Laboratory Blank Data Qualification Summary - SDG 04K094

No Sample Data Qualified in this SDG

**Laboratory Data Consultants, Inc.
Data Validation Report**

Project/Site Name: Moffett Airfield, MFA, Site 1, CTO 86
Collection Date: November 8 through November 9, 2004
LDC Report Date: January 11, 2005
Matrix: Water
Parameters: Polychlorinated Biphenyls
Validation Level: EPA Level III & IV
Laboratory: EMAX Laboratories, Inc.

ORIGINAL

Sample Delivery Group (SDG): 04K094

Sample Identification

86-S1-056
86-S1-056RE
86-S1-057
86-S1-057RE
86-S1-058**
86-S1-058RE**
86-S1-060
86-S1-061
86-S1-062

**Indicates sample underwent EPA Level IV review.

Introduction

This data review covers 9 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8082 for Polychlorinated Biphenyls.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification flags is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XIV.

Samples indicated by a double asterisk on the front cover underwent a EPA Level IV review. A EPA Level III review was performed on all other samples. Raw data were not evaluated for the samples reviewed by Level III criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UU Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met with the following exceptions:

| Sample | Compound | Total Days From Sample Collection Until Extraction | Required Holding Time (in Days) From Sample Collection Until Extraction | Flag | A or P |
|---------------------------------------------|-------------------|----------------------------------------------------|-------------------------------------------------------------------------|-----------------------------------------|--------|
| 86-S1-056RE 86-S1-057RE 86-S1-058RE** | All TCL compounds | 8 | 7 | J (all detects) UJ (all non-detects) | A |

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/ECD Instrument Performance Check

Instrument performance data were not provided and therefore not reviewed.

III. Initial Calibration

Initial calibration of multicomponent compounds was performed for the primary (quantitation) column as required by the method.

The percent relative standard deviations (%RSD) were less than or equal to 20.0% for all compounds.

Retention time windows were evaluated and considered technically acceptable for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples on which a Level III review was performed.

IV. Continuing Calibration

Continuing calibration was performed at required frequencies.

The percent differences (%D) of calibration factors in continuing standard mixtures were within the 15.0% QC limits.

Initial calibration verification (ICV) percent differences (%D) were less than or equal to 20.0% for all compounds.

Retention time windows were evaluated and considered technically acceptable for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples on which a Level III review was performed.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No polychlorinated biphenyl contaminants were found in the method blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits with the following exceptions:

| Sample | Column | Surrogate | %R (Limits) | Compound | Flag | A or P |
|-------------|---------|--------------------|-------------|-------------------|-----------------------------------------|--------|
| 86-S1-056 | RTX-CLP | Decachlorobiphenyl | 23 (30-130) | All TCL compounds | J (all detects) UJ (all non-detects) | A |
| 86-S1-057 | RTX-CLP | Decachlorobiphenyl | 9 (30-130) | All TCL compounds | J (all detects) R (all non-detects) | A |
| 86-S1-058** | RTX-CLP | Decachlorobiphenyl | 23 (30-130) | All TCL compounds | J (all detects) UJ (all non-detects) | A |

VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Pesticide Cleanup Checks

a. Florisil Cartridge Check

Florisil cleanup was not required and therefore not performed in this SDG.

b. GPC Calibration

GPC cleanup was not required and therefore not performed in this SDG.

XI. Target Compound Identification

All target compound identifications were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XII. Compound Quantitation and Reported CRQLs

All compound quantitation and CRQLs were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XIII. Overall Assessment of Data

Data flags are summarized at the end of this report.

XIV. Field Duplicates

No field duplicates were identified in this SDG.

XV. Field Blanks

No field blanks were identified in this SDG.

Moffett Airfield, MFA, Site 1, CTO 86

Polychlorinated Biphenyls - Data Qualification Summary - SDG 04K094

| SDG | Sample | Compound | Flag | A or P | Reason |
|--------|---------------------------------------------|-------------------|-----------------------------------------|--------|-------------------------|
| 04K094 | 86-S1-056RE 86-S1-057RE 86-S1-058RE** | All TCL compounds | J (all detects) UJ (all non-detects) | A | Technical holding times |
| 04K094 | 86-S1-056 86-S1-058** | All TCL compounds | J (all detects) UJ (all non-detects) | A | Surrogate recovery (%R) |
| 04K094 | 86-S1-057 | All TCL compounds | J (all detects) R (all non-detects) | A | Surrogate recovery (%R) |

Moffett Airfield, MFA, Site 1, CTO 86

Polychlorinated Biphenyls - Laboratory Blank Data Qualification Summary - SDG 04K094

No Sample Data Qualified in this SDG

CHAIN-OF-CUSTODY RECORD

| PROJECT NAME CT086-Site1-Semi-Annual | | PURCHASE ORDER NO. 20848 Task | | ANALYSES REQUIRED epa 8240B - Ext. List epa 8706C - Ext. List epa 8081A - Ext. List epa 8082 - Ext. List epa 200.8 - D. Metals epa 7470 - D. Merc. | | | | | | | | | | LABORATORY NAME EMAX | | Project Information Section Do not submit to Laboratory | | | | | | |
|---------------------------------------------------|----------------|-----------------------------------------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|---|--|--|--|--|--|-------------------------------------------------|--|-------------------------------------------------------------------|--|------------|------------|--------------------------------------------------------------|-----|-----|
| PROJECT LOCATION Moffett | | PROJECT NO. 1990.086E | | | | | | | | | | | | LABORATORY ID (FOR LABORATORY) 04K099 | | | | | | | | |
| SAMPLER NAME D. Harrison | | SAMPLER SIGNATURE <i>[Signature]</i> | | | | | | | | | | | | | | | | | | | | |
| PROJECT CONTACT Lynn Jefferson | | AIRBILL NUMBER 847882497896 | | | | | | | | | | | | | | | | | | | | |
| SAMPLE ID | DATE COLLECTED | TIME COLLECTED | NO. OF CONTAINER | LEVEL | | TYPE | T A T | | | | | | | | | | | COMMENTS | LOCATION | DEPTH | | QC |
| | | | | 3 | 4 | | | | | | | | | | | | | | | START | END | |
| 86-SI-070 | 11/9/04 | 1345 | 3 | X | | W | 10 day | X | | | | | | | | | | | Trip Blank | | | B |
| 86-SI-063 | 11/9/04 | 1400 | 11 | X | | W | 15 day | X | | | | | | | | | | | W1-5 | | | Reg |
| 86-SI-064 | 11/9/04 | 1415 | 11 | | X | W | 10 day | X | | | | | | | | | | | W1-5 | | | FD |
| 86-SI-065 | 11/10/04 | 0755 | 11 | X | | W | 15 day | X | | | | | | | | | | | W1-8 | | | Reg |
| 86-SI-066 | 11/10/04 | 0810 | 11 | | X | W | 10 day | X | | | | | | | | | | | W1-8 | | | FD |
| 86-SI-067 | 11/10/04 | 0905 | 11 | X | | W | 10 day | X | | | | | | | | | | | W1-24 | | | Reg |
| 86-SI-068 | 11/10/04 | 1005 | 33 | X | | W | 10 day | X | | | | | | | | | | Run MS/MSD | W1-16 | | | Reg |
| | | | | | | | | | | | | | | | | | | | | | | |
| RELINQUISHED BY (Signature) <i>[Signature]</i> | | DATE 11/10/04 | | RECEIVED BY (Signature) FLBUX | | LABORATORY INSTRUCTIONS/COMMENTS Metals & Mercury were field filtered. Ext. List = Extended List | | | | | | | | | | | | | | SAMPLING COMMENT: Site 1 Semi-annual /04 | | |
| COMPANY FW | | TIME 1400 | | COMPANY | | COMPOSITE DESCRIPTION | | | | | | | | | | | | | | | | |
| RELINQUISHED BY (Signature) | | DATE | | RECEIVED BY (Signature) | | SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY) | | | | | | | | | | | | | | | | |
| COMPANY | | TIME | | COMPANY | | TEMPERATURE: _____ SAMPLE CONDITION: <input type="checkbox"/> INTACT <input type="checkbox"/> BROKEN COOLER SEAL: <input type="checkbox"/> INTACT <input type="checkbox"/> BROKEN | | | | | | | | | | | | | | | | |

CASE NARRATIVE**CLIENT: TETRA TECH FW, INC.****PROJECT: MFA, SITE 1, CTO 86****SDG: 04K099****SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS**

Seven (7) water samples were received on 11/11/04 for Volatile Organic analysis by Method 5030B/8260B in accordance with USEPA SW846, 3rd ed.

1. Holding Time

Analytical holding time was met.

2. Tuning and Calibration

Tuning and calibration were carried out at 12-hour interval. All QC requirements were met.

3. Method Blank

Method blank was free of contamination at the reporting limit.

4. Surrogate Recovery

Recoveries were within QC limit.

5. Lab Control Sample/Lab Control Sample Duplicate

Recoveries were within QC limit.

6. Matrix Spike/Matrix Spike Duplicate

Sample K099-07 was spiked. All recoveries were within QC limit.

7. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criteria were met.

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH FW, INC. Date Collected: 11/09/04
Project : MFA SITE 1, CTO 86 Date Received: 11/11/04
Batch No. : D4K099 Date Extracted: 11/20/04 19:26
Sample ID: 86-S1-070 Date Analyzed: 11/20/04 19:26
Lab Samp ID: K099-01 Dilution Factor: 1
Lab File ID: RKD581 Matrix: WATER
Ext Btch ID: V094K45 % Moisture: NA
Calib. Ref.: RJD151 Instrument ID: T-094

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 1,1,1,2-TETRACHLOROETHANE | ND | 1.5 | 2.2 |
| 1,1,1-TRICHLOROETHANE | ND | 1.5 | 2.2 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 1.5 | 2.2 |
| 1,1,2-TRICHLOROETHANE | ND | 1.5 | 2.2 |
| 1,1-DICHLOROETHANE | ND | 1.5 | 2.2 |
| 1,1-DICHLOROETHENE | ND | 1.5 | 2.2 |
| 1,1-DICHLOROPROPENE | ND | 1.5 | 2.2 |
| 1,2,3-TRICHLOROBENZENE | ND | 1.5 | 2.2 |
| 1,2,3-TRICHLOROPROPANE | ND | 1.5 | 2.2 |
| 1,2,4-TRICHLOROBENZENE | ND | 1.5 | 2.2 |
| 1,2,4-TRIMETHYLBENZENE | ND | 1.5 | 2.2 |
| 1,2-DIBROMO-3-CHLOROPROPANE | ND | 1.5 | 2.2 |
| 1,2-DICHLOROBENZENE | ND | 1.5 | 2.2 |
| 1,2-DICHLOROETHANE | ND | 1.5 | 2.2 |
| 1,2-DICHLOROPROPANE | ND | 1.5 | 2.2 |
| 1,3,5-TRIMETHYLBENZENE | ND | 1.5 | 2.2 |
| 1,3-DICHLOROBENZENE | ND | 1.5 | 2.2 |
| 1,3-DICHLOROPROPANE | ND | 1.5 | 2.2 |
| 1,4-DICHLOROBENZENE | ND | 1.5 | 2.2 |
| 2,2-DICHLOROPROPANE | ND | 1.5 | 2.2 |
| 2-BUTANONE | ND | 1.5 | 2.2 |
| 2-CHLOROTOLUENE | ND | 1.5 | 2.2 |
| 2-HEXANONE | ND | 1.5 | 2.2 |
| 4-CHLOROTOLUENE | ND | 1.5 | 2.2 |
| 4-METHYL-2-PENTANONE | ND | 1.5 | 2.2 |
| ACETONE | ND | 1.5 | 2.2 |
| BENZENE | ND | 1.5 | 2.2 |
| BROMOBENZENE | ND | 1.5 | 2.2 |
| BROMOCHLOROMETHANE | ND | 1.5 | 2.2 |
| BROMODICHLOROMETHANE | ND | 1.5 | 2.2 |
| BROMOFORM | ND | 1.5 | 2.2 |
| BROMOMETHANE | ND | 1.5 | 2.2 |
| CARBON DISULFIDE | ND | 1.5 | 2.2 |
| CARBON TETRACHLORIDE | ND | 1.5 | 2.2 |
| CHLOROBENZENE | ND | 1.5 | 2.2 |
| CHLOROETHANE | ND | 1.5 | 2.2 |
| CHLOROFORM | ND | 1.5 | 2.2 |
| CHLOROMETHANE | ND | 1.5 | 2.2 |
| CIS-1,2-DICHLOROETHENE | ND | 1.5 | 2.2 |
| CIS-1,3-DICHLOROPROPENE | ND | 1.5 | 2.2 |
| DIBROMOCHLOROMETHANE | ND | 1.5 | 2.2 |
| DIBROMOMETHANE | ND | 1.5 | 2.2 |
| DICHLORODIFLUOROMETHANE | ND | 1.5 | 2.2 |
| ETHYLBENZENE | ND | 1.5 | 2.2 |
| HEXACHLOROBUTADIENE | ND | 1.5 | 2.2 |
| ISOPROPYL BENZENE | ND | 1.5 | 2.2 |
| M/P-XYLENES | ND | 1.5 | 2.2 |
| METHYLENE CHLORIDE | ND | 1.5 | 2.2 |
| N-BUTYLBENZENE | ND | 1.5 | 2.2 |
| N-PROPYLBENZENE | ND | 1.5 | 2.2 |
| NAPHTHALENE | ND | 1.5 | 2.2 |
| O-XYLENE | ND | 1.5 | 2.2 |
| P-ISOPROPYLTOLUENE | ND | 1.5 | 2.2 |
| SEC-BUTYLBENZENE | ND | 1.5 | 2.2 |
| STYRENE | ND | 1.5 | 2.2 |
| TERT-BUTYLBENZENE | ND | 1.5 | 2.2 |
| TETRACHLOROETHYLENE | ND | 1.5 | 2.2 |
| TOLUENE | ND | 1.5 | 2.2 |
| TRANS-1,2-DICHLOROETHENE | ND | 1.5 | 2.2 |
| TRANS-1,3-DICHLOROPROPENE | ND | 1.5 | 2.2 |
| TRICHLOROETHENE | ND | 1.5 | 2.2 |
| TRICHLOROFLUOROMETHANE | ND | 1.5 | 2.2 |
| VINYL CHLORIDE | ND | 1.5 | 2.2 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|-----------------------|------------|----------|
| 1,2-DICHLOROETHANE-D4 | 89 | 62-139 |
| TOLUENE-DB | 101 | 75-125 |
| BROMOFLUOROBENZENE | 111 | 75-125 |

R.L. : Reporting limit
* : Out of QC
E : Exceeded calibration range
B : Found in associated method blank
J : Value between R.L. and MDL
D : Value from dilution analysis
D.O. : Diluted out

Revised Report

2004

SW 50308/82608
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH FW, INC. Date Collected: 11/09/04
Project : MFA, SITE 1, CTO 86 Date Received: 11/11/04
Batch No. : 04K099 Date Extracted: 11/20/04 21:24
Sample ID: 86-S1-063 Date Analyzed: 11/20/04 21:24
Lab Samp ID: K099-02 Dilution Factor: 1
Lab File ID: RKD584 Matrix : WATER
Ext Btch ID: V094K45 % Moisture : NA
Calib. Ref.: RJD151 Instrument ID : T-094

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 1,1,1,2-TETRACHLOROETHANE | ND | .5 | .2 |
| 1,1,1-TRICHLOROETHANE | ND | .5 | .2 |
| 1,1,2,2-TETRACHLOROETHANE | ND | .5 | .3 |
| 1,1,2-TRICHLOROETHANE | ND | .5 | .2 |
| 1,1-DICHLOROETHANE | ND | .5 | .2 |
| 1,1-DICHLOROETHENE | ND | .5 | .2 |
| 1,1-DICHLOROPROPENE | ND | .5 | .2 |
| 1,2,3-TRICHLOROBENZENE | ND | .5 | .2 |
| 1,2,3-TRICHLOROPROPANE | ND | .5 | .2 |
| 1,2,4-TRICHLOROBENZENE | ND | .5 | .2 |
| 1,2,4-TRIMETHYLBENZENE | ND | .5 | .2 |
| 1,2-DIBROMO-3-CHLOROPROPANE | ND | .5 | .2 |
| 1,2-DICHLOROBENZENE | ND | .5 | .2 |
| 1,2-DICHLOROETHANE | ND | .5 | .2 |
| 1,2-DICHLOROPROPANE | ND | .5 | .2 |
| 1,3,5-TRIMETHYLBENZENE | ND | .5 | .2 |
| 1,3-DICHLOROBENZENE | ND | .5 | .2 |
| 1,3-DICHLOROPROPANE | ND | .5 | .2 |
| 1,4-DICHLOROBENZENE | ND | .5 | .2 |
| 2,2-DICHLOROPROPANE | ND | .5 | .2 |
| 2-BUTANONE | ND | 1.0 | .2 |
| 2-CHLOROTOLUENE | ND | 1.0 | .2 |
| 2-HEXANONE | ND | 1.0 | .2 |
| 4-CHLOROTOLUENE | ND | 1.0 | .2 |
| 4-METHYL-2-PENTANONE | ND | 1.0 | .2 |
| ACETONE | ND | 1.0 | .2 |
| BENZENE | ND | .5 | .2 |
| BROMOBENZENE | ND | .5 | .2 |
| BROMOCHLOROMETHANE | ND | .5 | .2 |
| BROMODICHLOROMETHANE | ND | .5 | .2 |
| BROMOFORM | ND | .5 | .2 |
| BROMOMETHANE | ND | .5 | .2 |
| CARBON DISULFIDE | ND | .5 | .2 |
| CARBON TETRACHLORIDE | ND | .5 | .2 |
| CHLOROBENZENE | ND | .5 | .2 |
| CHLORODETHANE | ND | .5 | .2 |
| CHLOROFORM | ND | .5 | .2 |
| CHLOROMETHANE | ND | .5 | .2 |
| CIS-1,2-DICHLOROETHENE | ND | .5 | .2 |
| CIS-1,3-DICHLOROPROPENE | ND | .5 | .2 |
| DIBROMOCHLOROMETHANE | ND | .5 | .2 |
| DIBROMOMETHANE | ND | .5 | .2 |
| DICHLORODIFLUOROMETHANE | ND | .5 | .2 |
| ETHYLBENZENE | ND | .5 | .2 |
| HEXACHLOROBUTADIENE | ND | .5 | .2 |
| ISOPROPYL BENZENE | ND | .5 | .2 |
| M/P-XYLENES | ND | .5 | .2 |
| METHYLENE CHLORIDE | ND | .5 | .2 |
| N-BUTYLBENZENE | ND | .5 | .2 |
| N-PROPYLBENZENE | ND | .5 | .2 |
| NAPHTHALENE | ND | .5 | .2 |
| O-XYLENE | ND | .5 | .2 |
| P-ISOPROPYLTOLUENE | ND | .5 | .2 |
| SEC-BUTYLBENZENE | ND | .5 | .2 |
| STYRENE | ND | .5 | .2 |
| TERT-BUTYLBENZENE | ND | .5 | .2 |
| TETRACHLOROETHYLENE | ND | .5 | .2 |
| TOLUENE | ND | .5 | .2 |
| TRANS-1,2-DICHLOROETHENE | ND | .5 | .2 |
| TRANS-1,3-DICHLOROPROPENE | ND | .5 | .2 |
| TRICHLOROETHENE | ND | .5 | .2 |
| TRICHLOROFUOROMETHANE | ND | .5 | .2 |
| VINYL CHLORIDE | ND | .5 | .2 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|-----------------------|------------|----------|
| 1,2-DICHLOROETHANE-D4 | 100 | 62-139 |
| TOLUENE-D8 | 92 | 75-125 |
| BROMOFLUOROBENZENE | 102 | 75-125 |

R.L. : Reporting limit
* : Out of QC
E : Exceeded calibration range
B : Found in associated method blank
J : Value between R.L. and MDL
D : Value from dilution analysis
D.O. : Diluted out

Revised Report

2005

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

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Client   : TETRA TECH FW, INC.      Date Collected: 11/09/04
Project  : MFA, SITE 1, CTO 86      Date Received: 11/11/04
Batch No.: 04K099                   Date Extracted: 11/20/04 22:02
Sample ID: 86-S1-064                Date Analyzed: 11/20/04 22:02
Lab Samp ID: K099-03                 Dilution Factor: 1
Lab File ID: RKD585                  Matrix: WATER
Ext Btch ID: V094K45                 % Moisture: NA
Calib. Ref.: RJD151                  Instrument ID: T-094
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| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 1,1,1,2-TETRACHLOROETHANE | ND | .5 | .2 |
| 1,1,1-TRICHLOROETHANE | ND | .5 | .2 |
| 1,1,2,2-TETRACHLOROETHANE | ND | .1 | .3 |
| 1,1,2-TRICHLOROETHANE | ND | .5 | .2 |
| 1,1-DICHLOROETHANE | ND | .5 | .2 |
| 1,1-DICHLOROETHENE | ND | .5 | .2 |
| 1,1-DICHLOROPROPENE | ND | .5 | .2 |
| 1,2,3-TRICHLOROBENZENE | ND | .5 | .2 |
| 1,2,3-TRICHLOROPROPANE | ND | .5 | .2 |
| 1,2,4-TRICHLOROBENZENE | ND | .5 | .2 |
| 1,2,4-TRIMETHYLBENZENE | ND | .5 | .2 |
| 1,2-DIBROMO-3-CHLOROPROPANE | ND | .5 | .2 |
| 1,2-DICHLOROBENZENE | ND | .5 | .2 |
| 1,2-DICHLOROETHANE | ND | .5 | .2 |
| 1,2-DICHLOROPROPANE | ND | .5 | .2 |
| 1,3,5-TRIMETHYLBENZENE | ND | .5 | .2 |
| 1,3-DICHLOROBENZENE | ND | .5 | .2 |
| 1,3-DICHLOROPROPANE | ND | .5 | .2 |
| 1,4-DICHLOROBENZENE | ND | .5 | .2 |
| 2,2-DICHLOROPROPANE | ND | .5 | .2 |
| 2-BUTANONE | ND | .5 | .2 |
| 2-CHLOROTOLUENE | ND | .5 | .2 |
| 2-HEXANONE | ND | .5 | .2 |
| 4-CHLOROTOLUENE | ND | .5 | .2 |
| 4-METHYL-2-PENTANONE | ND | .5 | .2 |
| ACETONE | ND | .5 | .2 |
| BENZENE | ND | .5 | .2 |
| BROMOBENZENE | ND | .5 | .2 |
| BROMOCHLOROMETHANE | ND | .5 | .2 |
| BROMODICHLOROMETHANE | ND | .5 | .2 |
| BROMOFORM | ND | .5 | .2 |
| BROMOMETHANE | ND | .5 | .2 |
| CARBON DISULFIDE | .23J | .5 | .2 |
| CARBON TETRACHLORIDE | ND | .5 | .2 |
| CHLOROBENZENE | ND | .5 | .2 |
| CHLOROETHANE | ND | .5 | .2 |
| CHLOROFORM | ND | .5 | .2 |
| CHLOROMETHANE | ND | .5 | .2 |
| CIS-1,2-DICHLOROETHENE | ND | .5 | .2 |
| CIS-1,3-DICHLOROPROPENE | ND | .5 | .2 |
| DIBROMOCHLOROMETHANE | ND | .5 | .2 |
| DIBROMOMETHANE | ND | .5 | .2 |
| DICHLORODIFLUOROMETHANE | ND | .5 | .2 |
| ETHYLBENZENE | ND | .5 | .2 |
| HEXACHLOROBUTADIENE | ND | .5 | .2 |
| ISOPROPYL BENZENE | ND | .5 | .2 |
| M/P-XYLENES | ND | .5 | .2 |
| METHYLENE CHLORIDE | ND | .5 | .2 |
| N-BUTYLBENZENE | ND | .5 | .2 |
| N-PROPYLBENZENE | ND | .5 | .2 |
| NAPHTHALENE | ND | .5 | .2 |
| O-XYLENE | ND | .5 | .2 |
| P-ISOPROPYLTOLUENE | ND | .5 | .2 |
| SEC-BUTYLBENZENE | ND | .5 | .2 |
| STYRENE | ND | .5 | .2 |
| TERT-BUTYLBENZENE | ND | .5 | .2 |
| TETRACHLOROETHYLENE | ND | .5 | .2 |
| TOLUENE | ND | .5 | .2 |
| TRANS-1,2-DICHLOROETHENE | ND | .5 | .2 |
| TRANS-1,3-DICHLOROPROPENE | ND | .5 | .2 |
| TRICHLOROETHENE | ND | .5 | .2 |
| TRICHLOROFLUOROMETHANE | ND | .5 | .2 |
| VINYL CHLORIDE | ND | .5 | .2 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|-----------------------|------------|----------|
| 1,2-DICHLOROETHANE-D4 | 102 | 62-139 |
| TOLUENE-D8 | 93 | 75-125 |
| BROMOFLUOROBENZENE | 109 | 75-125 |

R.L. : Reporting limit
 * : Out of QC
 E : Exceeded calibration range
 B : Found in associated method blank
 J : Value between R.L. and MDL
 D : Value from dilution analysis
 D.O. : Diluted out

Revised Report

2006

SW 50308/82608
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH FW, INC. Date Collected: 11/10/04
Project : MFA SITE 1, CTO 86 Date Received: 11/11/04
Batch No. : 04K099 Date Extracted: 11/20/04 22:41
Sample ID: 86-S1-065 Date Analyzed: 11/20/04 22:41
Lab Samp ID: K099-04 Dilution Factor: 1
Lab File ID: RKD586 Matrix : WATER
Ext Btch ID: V094K45 % Moisture : NA
Calib. Ref.: RJD151 Instrument ID : T-094

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 1,1,1,2-TETRACHLOROETHANE | ND | 5 | 2 |
| 1,1,1-TRICHLOROETHANE | ND | 5 | 2 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 5 | 2 |
| 1,1,2-TRICHLOROETHANE | ND | 5 | 2 |
| 1,1-DICHLOROETHANE | ND | 5 | 2 |
| 1,1-DICHLOROETHENE | ND | 5 | 2 |
| 1,1-DICHLOROPROPENE | ND | 5 | 2 |
| 1,2,3-TRICHLOROBENZENE | ND | 5 | 2 |
| 1,2,3-TRICHLOROPROPANE | ND | 5 | 2 |
| 1,2,4-TRICHLOROBENZENE | ND | 5 | 2 |
| 1,2,4-TRIMETHYLBENZENE | ND | 5 | 2 |
| 1,2-DIBROMO-3-CHLOROPROPANE | ND | 5 | 2 |
| 1,2-DICHLOROBENZENE | ND | 5 | 2 |
| 1,2-DICHLOROETHANE | ND | 5 | 2 |
| 1,2-DICHLOROPROPANE | ND | 5 | 2 |
| 1,3,5-TRIMETHYLBENZENE | ND | 5 | 2 |
| 1,3-DICHLOROBENZENE | ND | 5 | 2 |
| 1,3-DICHLOROPROPANE | ND | 5 | 2 |
| 1,4-DICHLOROBENZENE | ND | 5 | 2 |
| 2,2-DICHLOROPROPANE | ND | 5 | 2 |
| 2-BUTANONE | ND | 10 | 5 |
| 2-CHLOROTOLUENE | ND | 10 | 5 |
| 2-HEXANONE | ND | 10 | 5 |
| 4-CHLOROTOLUENE | ND | 10 | 5 |
| 4-METHYL-2-PENTANONE | ND | 10 | 5 |
| ACETONE | ND | 10 | 5 |
| BENZENE | ND | 5 | 2 |
| BROMOBENZENE | ND | 5 | 2 |
| BROMOCHLOROMETHANE | ND | 5 | 2 |
| BROMODICHLOROMETHANE | ND | 5 | 2 |
| BROMOFORM | ND | 5 | 2 |
| BROMOMETHANE | ND | 5 | 2 |
| CARBON DISULFIDE | ND | 5 | 2 |
| CARBON TETRACHLORIDE | ND | 5 | 2 |
| CHLOROBENZENE | ND | 5 | 2 |
| CHLOROETHANE | ND | 5 | 2 |
| CHLOROFORM | ND | 5 | 2 |
| CHLOROMETHANE | ND | 5 | 2 |
| CIS-1,2-DICHLOROETHENE | ND | 5 | 2 |
| CIS-1,3-DICHLOROPROPENE | ND | 5 | 2 |
| DIBROMOCHLOROMETHANE | ND | 5 | 2 |
| DIBROMOMETHANE | ND | 5 | 2 |
| DICHLORODIFLUOROMETHANE | ND | 5 | 2 |
| ETHYLBENZENE | ND | 5 | 2 |
| HEXACHLOROBUTADIENE | ND | 5 | 2 |
| ISOPROPYL BENZENE | ND | 5 | 2 |
| M/P-XYLENES | ND | 5 | 2 |
| METHYLENE CHLORIDE | ND | 5 | 2 |
| N-BUTYLBENZENE | ND | 5 | 2 |
| N-PROPYLBENZENE | ND | 5 | 2 |
| NAPHTHALENE | ND | 5 | 2 |
| O-XYLENE | ND | 5 | 2 |
| P-ISOPROPYLTOLUENE | ND | 5 | 2 |
| SEC-BUTYLBENZENE | ND | 5 | 2 |
| STYRENE | ND | 5 | 2 |
| TERT-BUTYLBENZENE | ND | 5 | 2 |
| TETRACHLOROETHYLENE | ND | 5 | 2 |
| TOLUENE | ND | 5 | 2 |
| TRANS-1,2-DICHLOROETHENE | ND | 5 | 2 |
| TRANS-1,3-DICHLOROPROPENE | ND | 5 | 2 |
| TRICHLOROETHENE | ND | 5 | 2 |
| TRICHLOROFUOROMETHANE | ND | 5 | 2 |
| VINYL CHLORIDE | ND | 5 | 2 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|-----------------------|------------|----------|
| 1,2-DICHLOROETHANE-D4 | 105 | 62-139 |
| TOLUENE-D8 | 93 | 75-125 |
| BROMOFLUOROBENZENE | 101 | 75-125 |

R.L. : Reporting limit
* : Out of QC
E : Exceeded calibration range
B : Found in associated method blank
J : Value between R.L. and MDL
D : Value from dilution analysis
D.O. : Diluted out

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH FW, INC. Date Collected: 11/10/04
Project : MFA, SITE 1, CTO 86 Date Received: 11/11/04
Batch No. : 04K099 Date Extracted: 11/20/04 23:21
Sample ID: 86-S1-066 Date Analyzed: 11/20/04 23:21
Lab Samp ID: KD99-05 Dilution Factor: 1
Lab File ID: RKD587 Matrix : WATER
Ext Btch ID: V094K45 % Moisture : NA
Calib. Ref.: RJD151 Instrument ID : T-094

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 1,1,1,2-TETRACHLOROETHANE | ND | 1.5 | 2.2 |
| 1,1,1-TRICHLOROETHANE | ND | 1.5 | 2.2 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 1.5 | 2.2 |
| 1,1,2-TRICHLOROETHANE | ND | 1.5 | 2.2 |
| 1,1-DICHLOROETHANE | ND | 1.5 | 2.2 |
| 1,1-DICHLOROETHENE | ND | 1.5 | 2.2 |
| 1,1-DICHLOROPROPENE | ND | 1.5 | 2.2 |
| 1,2,3-TRICHLOROBENZENE | ND | 1.5 | 2.2 |
| 1,2,3-TRICHLOROPROPANE | ND | 1.5 | 2.2 |
| 1,2,4-TRICHLOROBENZENE | ND | 1.5 | 2.2 |
| 1,2,4-TRIMETHYLBENZENE | ND | 1.5 | 2.2 |
| 1,2-DIBROMO-3-CHLOROPROPANE | ND | 1.5 | 2.2 |
| 1,2-DICHLOROBENZENE | ND | 1.5 | 2.2 |
| 1,2-DICHLOROETHANE | ND | 1.5 | 2.2 |
| 1,2-DICHLOROPROPANE | ND | 1.5 | 2.2 |
| 1,3,5-TRIMETHYLBENZENE | ND | 1.5 | 2.2 |
| 1,3-DICHLOROBENZENE | ND | 1.5 | 2.2 |
| 1,3-DICHLOROPROPANE | ND | 1.5 | 2.2 |
| 1,4-DICHLOROBENZENE | ND | 1.5 | 2.2 |
| 2,2-DICHLOROPROPANE | ND | 1.5 | 2.2 |
| 2-BUTANONE | ND | 1.5 | 2.2 |
| 2-CHLOROTOLUENE | ND | 1.5 | 2.2 |
| 2-HEXANONE | ND | 1.5 | 2.2 |
| 4-CHLOROTOLUENE | ND | 1.5 | 2.2 |
| 4-METHYL-2-PENTANONE | ND | 1.5 | 2.2 |
| ACETONE | ND | 1.5 | 2.2 |
| BENZENE | ND | 1.5 | 2.2 |
| BROMOBENZENE | ND | 1.5 | 2.2 |
| BROMOCHLOROMETHANE | ND | 1.5 | 2.2 |
| BROMODICHLOROMETHANE | ND | 1.5 | 2.2 |
| BROMOFORM | ND | 1.5 | 2.2 |
| BROMOMETHANE | ND | 1.5 | 2.2 |
| CARBON DISULFIDE | 23.1 | 1.5 | 2.2 |
| CARBON TETRACHLORIDE | ND | 1.5 | 2.2 |
| CHLOROBENZENE | ND | 1.5 | 2.2 |
| CHLOROETHANE | ND | 1.5 | 2.2 |
| CHLOROFORM | ND | 1.5 | 2.2 |
| CHLOROMETHANE | ND | 1.5 | 2.2 |
| CIS-1,2-DICHLOROETHENE | ND | 1.5 | 2.2 |
| CIS-1,3-DICHLOROPROPENE | ND | 1.5 | 2.2 |
| DIBROMOCHLOROMETHANE | ND | 1.5 | 2.2 |
| DIBROMOMETHANE | ND | 1.5 | 2.2 |
| DICHLORODIFLUOROMETHANE | ND | 1.5 | 2.2 |
| ETHYLBENZENE | ND | 1.5 | 2.2 |
| HEXACHLOROBUTADIENE | ND | 1.5 | 2.2 |
| ISOPROPYL BENZENE | ND | 1.5 | 2.2 |
| M/P-XYLENES | ND | 1.5 | 2.2 |
| METHYLENE CHLORIDE | ND | 1.5 | 2.2 |
| N-BUTYLBENZENE | ND | 1.5 | 2.2 |
| N-PROPYLBENZENE | ND | 1.5 | 2.2 |
| NAPHTHALENE | ND | 1.5 | 2.2 |
| O-XYLENE | ND | 1.5 | 2.2 |
| P-ISOPROPYLTOLUENE | ND | 1.5 | 2.2 |
| SEC-BUTYLBENZENE | ND | 1.5 | 2.2 |
| STYRENE | ND | 1.5 | 2.2 |
| TERT-BUTYLBENZENE | ND | 1.5 | 2.2 |
| TETRACHLOROETHYLENE | ND | 1.5 | 2.2 |
| TOLUENE | ND | 1.5 | 2.2 |
| TRANS-1,2-DICHLOROETHENE | ND | 1.5 | 2.2 |
| TRANS-1,3-DICHLOROPROPENE | ND | 1.5 | 2.2 |
| TRICHLOROETHENE | ND | 1.5 | 2.2 |
| TRICHLOROFLUOROMETHANE | ND | 1.5 | 2.2 |
| VINYL CHLORIDE | ND | 1.5 | 2.2 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|-----------------------|------------|----------|
| 1,2-DICHLOROETHANE-D4 | 102 | 62-139 |
| TOLUENE-D8 | 92 | 75-125 |
| BROMOFLUOROBENZENE | 102 | 75-125 |

R.L. : Reporting limit
* : Out of QC
E : Exceeded calibration range
B : Found in associated method blank
J : Value between R.L. and MDL
D : Value from dilution analysis
D.O. : Diluted out

Revised Report

2010

SW 50308/82608
VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH FW, INC. Date Collected: 11/10/04
Project : MFA, SITE 1, CTO 86 Date Received: 11/11/04
Batch No. : 04K099 Date Extracted: 11/21/04 00:00
Sample ID: 86-S1-067 Date Analyzed: 11/21/04 00:00
Lab Samp ID: K099-06 Dilution Factor: 1
Lab File ID: RKD588 Matrix : WATER
Ext Btch ID: V094K45 % Moisture : NA
Calib. Ref.: RJD151 Instrument ID : T-094

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 1,1,1,2-TETRACHLOROETHANE | ND | 100 | 100 |
| 1,1,1-TRICHLOROETHANE | ND | 100 | 100 |
| 1,1,2,2-TETRACHLOROETHANE | ND | 100 | 100 |
| 1,1,2-TRICHLOROETHANE | ND | 100 | 100 |
| 1,1-DICHLOROETHANE | ND | 100 | 100 |
| 1,1-DICHLOROETHENE | ND | 100 | 100 |
| 1,1-DICHLOROPROPENE | ND | 100 | 100 |
| 1,2,3-TRICHLOROBENZENE | ND | 100 | 100 |
| 1,2,3-TRICHLOROPROPANE | ND | 100 | 100 |
| 1,2,4-TRICHLOROBENZENE | ND | 100 | 100 |
| 1,2,4-TRIMETHYLBENZENE | ND | 100 | 100 |
| 1,2-DIBROMO-3-CHLOROPROPANE | ND | 100 | 100 |
| 1,2-DICHLOROBENZENE | ND | 100 | 100 |
| 1,2-DICHLOROETHANE | ND | 100 | 100 |
| 1,2-DICHLOROPROPANE | ND | 100 | 100 |
| 1,3,5-TRIMETHYLBENZENE | ND | 100 | 100 |
| 1,3-DICHLOROBENZENE | ND | 100 | 100 |
| 1,3-DICHLOROPROPANE | ND | 100 | 100 |
| 1,4-DICHLOROBENZENE | ND | 100 | 100 |
| 2,2-DICHLOROPROPANE | ND | 100 | 100 |
| 2-BUTANONE | ND | 100 | 100 |
| 2-CHLOROTOLUENE | ND | 100 | 100 |
| 2-HEXANONE | ND | 100 | 100 |
| 4-CHLOROTOLUENE | ND | 100 | 100 |
| 4-METHYL-2-PENTANONE | ND | 100 | 100 |
| ACETONE | ND | 100 | 100 |
| BENZENE | ND | 100 | 100 |
| BROMOBENZENE | ND | 100 | 100 |
| BROMOCHLOROMETHANE | ND | 100 | 100 |
| BROMODICHLOROMETHANE | ND | 100 | 100 |
| BROMOFORM | ND | 100 | 100 |
| BROMOMETHANE | ND | 100 | 100 |
| CARBON DISULFIDE | ND | 100 | 100 |
| CARBON TETRACHLORIDE | ND | 100 | 100 |
| CHLOROBENZENE | ND | 100 | 100 |
| CHLOROETHANE | ND | 100 | 100 |
| CHLOROFORM | ND | 100 | 100 |
| CHLOROMETHANE | ND | 100 | 100 |
| CIS-1,2-DICHLOROETHENE | ND | 100 | 100 |
| CIS-1,3-DICHLOROPROPENE | ND | 100 | 100 |
| DIBROMOCHLOROMETHANE | ND | 100 | 100 |
| DIBROMOMETHANE | ND | 100 | 100 |
| DICHLORODIFLUOROMETHANE | ND | 100 | 100 |
| ETHYLBENZENE | ND | 100 | 100 |
| HEXACHLOROBUTADIENE | ND | 100 | 100 |
| ISOPROPYL BENZENE | ND | 100 | 100 |
| M/P-XYLENES | ND | 100 | 100 |
| METHYLENE CHLORIDE | ND | 100 | 100 |
| N-BUTYLBENZENE | ND | 100 | 100 |
| N-PROPYLBENZENE | ND | 100 | 100 |
| NAPHTHALENE | ND | 100 | 100 |
| O-XYLENE | ND | 100 | 100 |
| P-ISOPROPYLTOLUENE | ND | 100 | 100 |
| SEC-BUTYLBENZENE | ND | 100 | 100 |
| STYRENE | ND | 100 | 100 |
| TERT-BUTYLBENZENE | ND | 100 | 100 |
| TETRACHLOROETHYLENE | ND | 100 | 100 |
| TOLUENE | ND | 100 | 100 |
| TRANS-1,2-DICHLOROETHENE | ND | 100 | 100 |
| TRANS-1,3-DICHLOROPROPENE | ND | 100 | 100 |
| TRICHLOROETHENE | ND | 100 | 100 |
| TRICHLOROFLUOROMETHANE | ND | 100 | 100 |
| VINYL CHLORIDE | ND | 100 | 100 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|-----------------------|------------|----------|
| 1,2-DICHLOROETHANE-D4 | 99 | 62-139 |
| TOLUENE-D8 | 94 | 75-125 |
| BROMOFLUOROBENZENE | 100 | 75-125 |

R.L. : Reporting limit
* : Out of QC
E : Exceeded calibration range
B : Found in associated method blank
J : Value between R.L. and MDL
D : Value from dilution analysis
D.O. : Diluted out

Revised Report

2014

SW 50308/82608
VOLATILE ORGANICS BY GC/MS

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Client       : TETRA TECH FW, INC.      Date Collected: 11/10/04
Project      : MFA, SITE 1, CTO 86      Date Received: 11/11/04
Batch No.    : 04K099                   Date Extracted: 11/21/04 00:38
Sample ID    : 86-S1-068                Date Analyzed: 11/21/04 00:38
Lab Samp ID  : K099-07                  Dilution Factor: 1
Lab File ID  : RKD589                    Matrix: WATER
Ext Btch ID  : V094K45                   % Moisture: NA
Calib. Ref.  : RJD151                    Instrument ID: T-094
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| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 1,1,1,2-TETRACHLOROETHANE | ND | .5 | .2 |
| 1,1,1-TRICHLOROETHANE | ND | .5 | .2 |
| 1,1,2,2-TETRACHLOROETHANE | ND | .5 | .2 |
| 1,1,2-TRICHLOROETHANE | ND | .5 | .2 |
| 1,1-DICHLOROETHANE | ND | .5 | .2 |
| 1,1-DICHLOROETHENE | ND | .5 | .2 |
| 1,1-DICHLOROPROPENE | ND | .5 | .2 |
| 1,2,3-TRICHLOROBENZENE | ND | .5 | .2 |
| 1,2,3-TRICHLOROPROPANE | ND | .5 | .2 |
| 1,2,4-TRICHLOROBENZENE | ND | .5 | .2 |
| 1,2,4-TRIMETHYLBENZENE | ND | .5 | .2 |
| 1,2-DIBROMO-3-CHLOROPROPANE | ND | .5 | .2 |
| 1,2-DICHLOROBENZENE | ND | .5 | .2 |
| 1,2-DICHLOROETHANE | ND | .5 | .2 |
| 1,2-DICHLOROPROPANE | ND | .5 | .2 |
| 1,3,5-TRIMETHYLBENZENE | ND | .5 | .2 |
| 1,3-DICHLOROBENZENE | ND | .5 | .2 |
| 1,3-DICHLOROPROPANE | ND | .5 | .2 |
| 1,4-DICHLOROBENZENE | ND | .5 | .2 |
| 2,2-DICHLOROPROPANE | ND | .5 | .2 |
| 2-BUTANONE | ND | .5 | .2 |
| 2-CHLOROTOLUENE | ND | .5 | .2 |
| 2-HEXANONE | ND | .5 | .2 |
| 4-CHLOROTOLUENE | ND | .5 | .2 |
| 4-METHYL-2-PENTANONE | ND | .5 | .2 |
| ACETONE | ND | .5 | .2 |
| BENZENE | ND | .5 | .2 |
| BROMOBENZENE | ND | .5 | .2 |
| BROMOCHLOROMETHANE | ND | .5 | .2 |
| BROMODICHLOROMETHANE | ND | .5 | .2 |
| BROMOFORM | ND | .5 | .2 |
| BROMOMETHANE | ND | .5 | .2 |
| CARBON DISULFIDE | ND | .5 | .2 |
| CARBON TETRACHLORIDE | ND | .5 | .2 |
| CHLOROBENZENE | ND | .5 | .2 |
| CHLOROETHANE | ND | .5 | .2 |
| CHLOROFORM | ND | .5 | .2 |
| CHLOROMETHANE | ND | .5 | .2 |
| CIS-1,2-DICHLOROETHENE | ND | .5 | .2 |
| CIS-1,3-DICHLOROPROPENE | ND | .5 | .2 |
| DIBROMOCHLOROMETHANE | ND | .5 | .2 |
| DIBROMOMETHANE | ND | .5 | .2 |
| DICHLORODIFLUOROMETHANE | ND | .5 | .2 |
| ETHYLBENZENE | ND | .5 | .2 |
| HEXACHLOROBUTADIENE | ND | .5 | .2 |
| ISOPROPYL BENZENE | ND | .5 | .2 |
| M/P-XYLENES | ND | .5 | .2 |
| METHYLENE CHLORIDE | ND | .5 | .2 |
| N-BUTYLBENZENE | ND | .5 | .2 |
| N-PROPYLBENZENE | ND | .5 | .2 |
| NAPHTHALENE | ND | .5 | .2 |
| O-XYLENE | ND | .5 | .2 |
| P-ISOPROPYLTOLUENE | ND | .5 | .2 |
| SEC-BUTYLBENZENE | ND | .5 | .2 |
| STYRENE | ND | .5 | .2 |
| TERT-BUTYLBENZENE | ND | .5 | .2 |
| TETRACHLOROETHYLENE | ND | .5 | .2 |
| TOLUENE | ND | .5 | .2 |
| TRANS-1,2-DICHLOROETHENE | ND | .5 | .2 |
| TRANS-1,3-DICHLOROPROPENE | ND | .5 | .2 |
| TRICHLOROETHENE | ND | .5 | .2 |
| TRICHLOROFLUOROMETHANE | ND | .5 | .2 |
| VINYL CHLORIDE | ND | .5 | .2 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|-----------------------|------------|----------|
| 1,2-DICHLOROETHANE-D4 | 103 | 62-139 |
| TOLUENE-DB | 92 | 75-125 |
| BROMOFLUOROBENZENE | 102 | 75-125 |

R.L. : Reporting limit
 * : Out of QC
 E : Exceeded calibration range
 B : Found in associated method blank
 J : Value between R.L. and MDL
 D : Value from dilution analysis
 D.O. : Diluted out

Revised Report

2015

CASE NARRATIVE

CLIENT: TETRA TECH FW, INC.
PROJECT: MFA, SITE 1, CTO 86
SDG: 04K099

SW 3520C/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Six (6) water samples were received on 11/11/04 for Semi Volatile Organic analysis by Method 3520C/8270C in accordance with USEPA SW846, 3rd ed.

1. Holding Time
Analytical holding time was met.
2. Tuning and Calibration
Tuning and calibration were carried out at 12-hour interval. All QC requirements were met.
3. Method Blank
Method blank was free of contamination at the reporting limit.
4. Surrogate Recovery
Recoveries were within QC limit.
5. Lab Control Sample
Recoveries were within QC limit.
6. Matrix Spike/Matrix Spike Duplicate
Sample K099-07 was spiked. All recoveries were within QC limit.
7. Sample Analysis
Samples were analyzed according to the prescribed QC procedures. All criteria were met.

SW 3520C/8270C
SEMI VOLATILE ORGANICS BY GC/MS

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Client      : TETRA TECH FW INC.      Date Collected: 11/09/04
Project     : MFA SITE 1, CTO 86     Date Received: 11/11/04
Batch No.   : 04K099                 Date Extracted: 11/15/04 18:00
Sample ID   : 86-S1-063              Date Analyzed: 12/03/04 16:40
Lab Samp ID : K099-02                Dilution Factor: 94
Lab File ID : RLH034                 Matrix: WATER
Ext Btch ID : SVK019W                % Moisture: NA
Calib. Ref. : RLH007                 Instrument ID: T-041
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| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 2,4,5-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4,6-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DIMETHYLPHENOL | ND | 9.4 | 4.7 |
| 2,4-DINITROPHENOL | ND | 19 | 9.4 |
| 2,4-DINITROTOLUENE | ND | 19 | 9.4 |
| 2,6-DINITROTOLUENE | ND | 19 | 5.6 |
| 2-CHLORONAPHTHALENE | ND | 9.4 | 4.7 |
| 2-CHLOROPHENOL | ND | 9.4 | 4.7 |
| 2-METHYLNAPHTHALENE | ND | 9.4 | 4.7 |
| 2-METHYLPHENOL | ND | 9.4 | 4.7 |
| 2-NITROANILINE | ND | 19 | 5.6 |
| 2-NITROPHENOL | ND | 9.4 | 4.7 |
| 3,3'-DICHLOROBENZIDINE | ND | 9.4 | 4.7 |
| 3-NITROANILINE | ND | 9.4 | 4.7 |
| 4,6-DINITRO-2-METHYLPHENOL | ND | 19 | 9.4 |
| 4-BROMOPHENYL-PHENYL ETHER | ND | 19 | 6.6 |
| 4-CHLORO-3-METHYLPHENOL | ND | 9.4 | 4.7 |
| 4-CHLOROANILINE | ND | 9.4 | 4.7 |
| 4-CHLOROPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-METHYLPHENOL (1) | ND | 9.4 | 4.7 |
| 4-NITROANILINE | ND | 9.4 | 4.7 |
| 4-NITROPHENOL | ND | 19 | 4.7 |
| ACENAPHTHENE | ND | 9.4 | 4.7 |
| ACENAPHTHYLENE | ND | 9.4 | 4.7 |
| ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)PYRENE | ND | 9.4 | 4.7 |
| BENZO(B)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(K)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(G,H,I)PERYLENE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHOXY)METHANE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-CHLOROISOPROPYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-ETHYLHEXYL)PHTHALATE | ND | 19 | 9.4 |
| BUTYLBENZYLPHTHALATE | ND | 9.4 | 4.7 |
| CHRYSENE | ND | 9.4 | 4.7 |
| DI-N-BUTYLPHTHALATE | ND | 9.4 | 4.7 |
| DI-N-OCTYLPHTHALATE | ND | 9.4 | 4.7 |
| DIBENZO(A,H)ANTHRACENE | ND | 9.4 | 4.7 |
| DIBENZO(F,H)ANTHRACENE | ND | 9.4 | 4.7 |
| DIBENZO(P,Q)ANTHRACENE | ND | 19 | 5.6 |
| DIMETHYLPHTHALATE | ND | 19 | 4.7 |
| FLUORANTHENE | ND | 9.4 | 4.7 |
| FLUORENE | ND | 9.4 | 4.7 |
| HEXACHLOROBENZENE | ND | 19 | 5.6 |
| HEXACHLOROCYCLOPENTADIENE | ND | 9.4 | 4.7 |
| HEXACHLOROETHANE | ND | 9.4 | 4.7 |
| INDENO(1,2,3-CD)PYRENE | ND | 9.4 | 4.7 |
| ISOPHORONE | ND | 9.4 | 4.7 |
| N-NITROSO-DI-N-PROPYLAMINE | ND | 9.4 | 4.7 |
| N-NITROSODIPHENYLAMINE (2) | ND | 9.4 | 4.7 |
| NITROBENZENE | ND | 9.4 | 4.7 |
| PENTACHLOROPHENOL | ND | 19 | 9.4 |
| PHENANTHRENE | ND | 19 | 5.6 |
| PHENOL | ND | 9.4 | 4.7 |
| PYRENE | ND | 9.4 | 4.7 |
| 1,1'-BIPHENYL | ND | 9.4 | 4.7 |
| ACETOPHENONE | ND | 9.4 | 2.3 |
| ATRAZINE | ND | 19 | 9.4 |
| BENZALDEHYDE | ND | 9.4 | 4.7 |
| CAPROLACTAM | ND | 9.4 | 4.7 |
| CARBAZOLE | ND | 9.4 | 4.7 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| 2,4,6-TRIBROMOPHENOL | 93 | 25-134 |
| 2-FLUOROBIPHENYL | 55 | 43-125 |
| 2-FLUOROPHENOL | 44 | 25-125 |
| NITROBENZENE-D5 | 54 | 25-125 |
| PHENOL-D5 | 49 | 25-125 |
| TERPHENYL-D14 | 109 | 42-126 |

RL: Reporting Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

Revised Report

3004

SW 3520C/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH, FW, INC. Date Collected: 11/09/04
Project : MFA, SITE 1, CTO 86 Date Received: 11/11/04
Batch No. : 04K099 Date Extracted: 11/15/04 18:00
Sample ID: 86-S1-064 Date Analyzed: 12/03/04 17:07
Lab Samp ID: K099-05 Dilution Factor: .94
Lab File ID: RLH035 Matrix : WATER
Ext Btch ID: SVK019W % Moisture : NA
Calib. Ref.: RLH007 Instrument ID : T-041

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 2,4,5-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4,6-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DIMETHYLPHENOL | ND | 9.4 | 4.7 |
| 2,4-DINITROPHENOL | ND | 19 | 9.4 |
| 2,4-DINITROTOLUENE | ND | 19 | 9.4 |
| 2,6-DINITROTOLUENE | ND | 19 | 5.6 |
| 3-CHLORONAPHTHALENE | ND | 9.4 | 4.7 |
| 3-CHLOROPHENOL | ND | 9.4 | 4.7 |
| 3-METHYLNAPHTHALENE | ND | 9.4 | 4.7 |
| 3-METHYLPHENOL | ND | 9.4 | 4.7 |
| 3-NITROANILINE | ND | 19 | 5.6 |
| 3-NITROPHENOL | ND | 9.4 | 4.7 |
| 3,3'-DICHLOROBENZIDINE | ND | 9.4 | 4.7 |
| 3-NITROANILINE | ND | 9.4 | 4.7 |
| 4,6-DINITRO-2-METHYLPHENOL | ND | 19 | 9.4 |
| 4-BROMOPHENYL-PHENYL ETHER | ND | 19 | 6.6 |
| 4-CHLORO-3-METHYLPHENOL | ND | 9.4 | 4.7 |
| 4-CHLOROANILINE | ND | 9.4 | 4.7 |
| 4-CHLOROPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-METHYLPHENOL (1) | ND | 9.4 | 4.7 |
| 4-NITROANILINE | ND | 9.4 | 4.7 |
| 4-NITROPHENOL | ND | 19 | 4.7 |
| ACENAPHTHENE | ND | 9.4 | 4.7 |
| ACENAPHTHYLENE | ND | 9.4 | 4.7 |
| ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)PYRENE | ND | 9.4 | 4.7 |
| BENZO(B)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(K)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(G,H,I)PERYLENE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHOXY)METHANE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-CHLOROISOPROPYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-ETHYLHEXYL)PHTHALATE | ND | 19 | 9.4 |
| BUTYLBENZYLPHTHALATE | ND | 9.4 | 4.7 |
| CHRYSENE | ND | 9.4 | 4.7 |
| DI-N-BUTYLPHTHALATE | ND | 9.4 | 4.7 |
| DI-N-OCTYLPHTHALATE | ND | 9.4 | 4.7 |
| DIBENZO(A,H)ANTHRACENE | ND | 9.4 | 4.7 |
| DIBENZOFURAN | ND | 9.4 | 4.7 |
| DIETHYLPHTHALATE | ND | 19 | 5.6 |
| DIMETHYLPHTHALATE | ND | 19 | 4.7 |
| FLUORANTHENE | ND | 9.4 | 4.7 |
| FLUORENE | ND | 9.4 | 4.7 |
| HEXACHLOROBENZENE | ND | 19 | 5.6 |
| HEXACHLOROCYCLOPENTADIENE | ND | 9.4 | 4.7 |
| HEXACHLOROETHANE | ND | 9.4 | 4.7 |
| INDENO(1,2,3-CD)PYRENE | ND | 9.4 | 4.7 |
| ISOPHORONE | ND | 9.4 | 4.7 |
| N-NITROSDI-N-PROPYLAMINE | ND | 9.4 | 4.7 |
| N-NITROSDIPHENYLAMINE (2) | ND | 9.4 | 4.7 |
| NITROBENZENE | ND | 9.4 | 4.7 |
| PENTACHLOROPHENOL | ND | 19 | 9.4 |
| PHENANTHRENE | ND | 19 | 5.6 |
| PHENOL | ND | 9.4 | 4.7 |
| PYRENE | ND | 9.4 | 4.7 |
| 1,1'-BIPHENYL | ND | 9.4 | 4.7 |
| ACETOPHENONE | ND | 9.4 | 2.5 |
| ATRAZINE | ND | 19 | 9.4 |
| BENZALDEHYDE | ND | 9.4 | 4.7 |
| CAPROLACTAM | ND | 9.4 | 4.7 |
| CARBAZOLE | ND | 9.4 | 4.7 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| 2,4,6-TRIBROMOPHENOL | 92 | 25-134 |
| 2-FLUOROBIPHENYL | 67 | 43-125 |
| 2-FLUOROPHENOL | 58 | 25-125 |
| NITROBENZENE-D5 | 76 | 25-125 |
| PHENOL-D5 | 65 | 25-125 |
| TERPHENYL-D14 | 112 | 42-126 |

RL: Reporting Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

Revised Report

3005

SW 3520C/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH FW, INC. Date Collected: 11/10/04
Project : MFA SITE 1, CTO 86 Date Received: 11/11/04
Batch No. : 04K099 Date Extracted: 11/15/04 18:00
Sample ID: 86-S1-065 Date Analyzed: 12/03/04 17:35
Lab Samp ID: K099-04 Dilution Factor: .94
Lab File ID: RLH036 Matrix : WATER
Ext Btch ID: SVK019W % Moisture : NA
Calib. Ref.: RLH007 Instrument ID : T-041

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 2,4,5-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4,6-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DIMETHYLPHENOL | ND | 9.4 | 4.7 |
| 2,4-DINITROPHENOL | ND | 19 | 9.4 |
| 2,4-DINITROTOLUENE | ND | 19 | 9.4 |
| 2,6-DINITROTOLUENE | ND | 19 | 5.6 |
| 2-CHLORONAPHTHALENE | ND | 9.4 | 4.7 |
| 2-CHLOROPHENOL | ND | 9.4 | 4.7 |
| 2-METHYLNAPHTHALENE | ND | 9.4 | 4.7 |
| 2-METHYLPHENOL | ND | 19 | 5.6 |
| 2-NITROANILINE | ND | 9.4 | 4.7 |
| 2-NITROPHENOL | ND | 9.4 | 4.7 |
| 2,3-DICHLOROBENZIDINE | ND | 9.4 | 4.7 |
| 2-NITROANILINE | ND | 9.4 | 4.7 |
| 4,6-DINITRO-2-METHYLPHENOL | ND | 19 | 9.4 |
| 4-BROMOPHENYL-PHENYL ETHER | ND | 19 | 6.6 |
| 4-CHLORO-3-METHYLPHENOL | ND | 9.4 | 4.7 |
| 4-CHLOROANILINE | ND | 9.4 | 4.7 |
| 4-CHLOROPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-METHYLPHENOL (1) | ND | 9.4 | 4.7 |
| 4-NITROANILINE | ND | 9.4 | 4.7 |
| 4-NITROPHENOL | ND | 19 | 4.7 |
| ACENAPHTHENE | ND | 9.4 | 4.7 |
| ACENAPHTHYLENE | ND | 9.4 | 4.7 |
| ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)PYRENE | ND | 9.4 | 4.7 |
| BENZO(B)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(K)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(G,H,I)PERYLENE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHOXY)METHANE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-CHLOROISOPROPYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-ETHYLHEXYL)PHTHALATE | ND | 19 | 9.4 |
| BUTYLBENZYLPHTHALATE | ND | 9.4 | 4.7 |
| CHRYSENE | ND | 9.4 | 4.7 |
| DI-N-BUTYLPHTHALATE | ND | 9.4 | 4.7 |
| DI-N-OCTYLPHTHALATE | ND | 9.4 | 4.7 |
| DIBENZO(A,H)ANTHRACENE | ND | 9.4 | 4.7 |
| DIBENZOFURAN | ND | 19 | 5.6 |
| DIETHYLPHTHALATE | ND | 19 | 4.7 |
| DIMETHYLPHTHALATE | ND | 9.4 | 4.7 |
| FLUORANTHENE | ND | 9.4 | 4.7 |
| FLUORENE | ND | 19 | 5.6 |
| HEXACHLORO BENZENE | ND | 9.4 | 4.7 |
| HEXACHLOROCYCLOPENTADIENE | ND | 9.4 | 4.7 |
| HEXACHLOROETHANE | ND | 9.4 | 4.7 |
| INDENO(1,2,3-CD)PYRENE | ND | 9.4 | 4.7 |
| ISOPHORONE | ND | 9.4 | 4.7 |
| N-NITROSO-DI-N-PROPYLAMINE | ND | 9.4 | 4.7 |
| N-NITROSODIPHENYLAMINE (2) | ND | 9.4 | 4.7 |
| NITROBENZENE | ND | 19 | 9.4 |
| PENTACHLOROPHENOL | ND | 19 | 9.4 |
| PHENANTHRENE | ND | 9.4 | 5.6 |
| PHENOL | ND | 9.4 | 4.7 |
| PYRENE | ND | 9.4 | 4.7 |
| 1,1'-BIPHENYL | ND | 9.4 | 4.7 |
| ACETOPHENONE | ND | 9.4 | 2.3 |
| ATRAZINE | ND | 19 | 9.4 |
| BENZALDEHYDE | ND | 9.4 | 4.7 |
| CAPROLACTAM | ND | 9.4 | 4.7 |
| CARBAZOLE | ND | 9.4 | 4.7 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| 2,4,6-TRIBROMOPHENOL | 87 | 25-134 |
| 2-FLUOROBIPHENYL | 78 | 43-125 |
| 2-FLUOROPHENOL | 68 | 25-125 |
| NITROBENZENE-D5 | 85 | 32-125 |
| PHENOL-D5 | 74 | 25-125 |
| TERPHENYL-D14 | 111 | 42-126 |

RL: Reporting Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

Revised Report

3010

SW 3520C/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH, FW, INC.
Project : MFA SITE 1, CTO 86
Batch No. : 04K099
Sample ID: 86-S1-066
Lab Samp ID: K099-05
Lab File ID: RLH037
Ext Btch ID: SVK019W
Calib. Ref.: RLH007
Date Collected: 11/10/04
Date Received: 11/11/04
Date Extracted: 11/15/04 18:00
Date Analyzed: 12/03/04 18:02
Dilution Factor: 94
Matrix : WATER
% Moisture : NA
Instrument ID : T-041

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 2,4,5-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4,6-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DIMETHYLPHENOL | ND | 9.4 | 4.7 |
| 2,4-DINITROPHENOL | ND | 19 | 9.4 |
| 2,4-DINITROTOLUENE | ND | 19 | 9.4 |
| 2,6-DINITROTOLUENE | ND | 19 | 5.6 |
| 2-CHLORONAPHTHALENE | ND | 9.4 | 4.7 |
| 2-CHLOROPHENOL | ND | 9.4 | 4.7 |
| 2-METHYLNAPHTHALENE | ND | 9.4 | 4.7 |
| 2-METHYLPHENOL | ND | 9.4 | 4.7 |
| 2-NITROANILINE | ND | 19 | 5.6 |
| 2-NITROPHENOL | ND | 9.4 | 4.7 |
| 3,3'-DICHLORO BENZIDINE | ND | 9.4 | 4.7 |
| 3-NITROANILINE | ND | 9.4 | 4.7 |
| 4,6-DINITRO-2-METHYLPHENOL | ND | 19 | 9.4 |
| 4-BROMOPHENYL-PHENYL ETHER | ND | 19 | 6.6 |
| 4-CHLORO-3-METHYLPHENOL | ND | 9.4 | 4.7 |
| 4-CHLOROANILINE | ND | 9.4 | 4.7 |
| 4-CHLOROPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-METHYLPHENOL (1) | ND | 9.4 | 4.7 |
| 4-NITROANILINE | ND | 9.4 | 4.7 |
| 4-NITROPHENOL | ND | 19 | 4.7 |
| ACENAPHTHENE | ND | 9.4 | 4.7 |
| ACENAPHTHYLENE | ND | 9.4 | 4.7 |
| ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)PYRENE | ND | 9.4 | 4.7 |
| BENZO(B)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(K)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(G,H,I)PERYLENE | ND | 9.4 | 4.7 |
| BIS(2-CHLORODETHOXY)METHANE | ND | 9.4 | 4.7 |
| BIS(2-CHLORODETHYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-CHLOROISOPROPYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-ETHYLHEXYL)PHTHALATE | ND | 19 | 9.4 |
| BUTYLBENZYLPHTHALATE | ND | 9.4 | 4.7 |
| CHRYSENE | ND | 9.4 | 4.7 |
| DI-N-BUTYLPHTHALATE | ND | 9.4 | 4.7 |
| DI-N-OCTYLPHTHALATE | ND | 9.4 | 4.7 |
| DIBENZO(A,H)ANTHRACENE | ND | 9.4 | 4.7 |
| DIBENZOFURAN | ND | 9.4 | 4.7 |
| DIETHYLPHTHALATE | ND | 19 | 5.6 |
| DIMETHYLPHTHALATE | ND | 9.4 | 4.7 |
| FLUORANTHENE | ND | 9.4 | 4.7 |
| FLUORENE | ND | 19 | 5.6 |
| HEXACHLOROBENZENE | ND | 9.4 | 4.7 |
| HEXACHLOROCYCLOPENTADIENE | ND | 9.4 | 4.7 |
| HEXACHLORODETHANE | ND | 9.4 | 4.7 |
| INDENO(1,2,3-CD)PYRENE | ND | 9.4 | 4.7 |
| ISOPHORONE | ND | 9.4 | 4.7 |
| N-NITROSO-DI-N-PROPYLAMINE | ND | 9.4 | 4.7 |
| N-NITROSODIPHENYLAMINE (2) | ND | 9.4 | 4.7 |
| NITROBENZENE | ND | 9.4 | 4.7 |
| PENTACHLOROPHENOL | ND | 19 | 9.4 |
| PHENANTHRENE | ND | 19 | 5.6 |
| PHENOL | ND | 9.4 | 4.7 |
| PYRENE | ND | 9.4 | 4.7 |
| 1,1'-BIPHENYL | ND | 9.4 | 4.7 |
| ACETOPHENONE | ND | 9.4 | 2.3 |
| ATRAZINE | ND | 19 | 9.4 |
| BENZALDEHYDE | ND | 9.4 | 4.7 |
| CAPROLACTAM | ND | 9.4 | 4.7 |
| CARBAZOLE | ND | 9.4 | 4.7 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| 2,4,6-TRIBROMOPHENOL | 75 | 25-134 |
| 2-FLUOROBIPHENYL | 69 | 43-125 |
| 2-FLUOROPHENOL | 67 | 25-125 |
| NITROBENZENE-D5 | 82 | 32-125 |
| PHENOL-D5 | 69 | 25-125 |
| TERPHENYL-D14 | 102 | 42-126 |

RL: Reporting Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

Revised Report

3011

SW 3520C/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH FW, INC. Date Collected: 11/10/04
Project : MFA, SITE 1, CTO 86 Date Received: 11/11/04
Batch No. : 04K099 Date Extracted: 11/15/04 18:00
Sample ID: 86-S1-067 Date Analyzed: 12/03/04 18:30
Lab Samp ID: K099-06 Dilution Factor: 94
Lab File ID: RLH038 Matrix : WATER
Ext Btch ID: SVK019W % Moisture : NA
Calib. Ref.: RLH007 Instrument ID : T-041

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 2,4,5-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4,6-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DIMETHYLPHENOL | ND | 9.4 | 4.7 |
| 2,4-DINITROPHENOL | ND | 19 | 9.4 |
| 2,4-DINITROTOLUENE | ND | 19 | 9.4 |
| 2,6-DINITROTOLUENE | ND | 19 | 5.6 |
| 2-CHLORONAPHTHALENE | ND | 9.4 | 4.7 |
| 2-CHLOROPHENOL | ND | 9.4 | 4.7 |
| 2-METHYLNAPHTHALENE | ND | 9.4 | 4.7 |
| 2-METHYLPHENOL | ND | 9.4 | 4.7 |
| 2-NITROANILINE | ND | 19 | 4.7 |
| 2-NITROPHENOL | ND | 9.4 | 4.7 |
| 3,3'-DICHLOROBENZIDINE | ND | 9.4 | 4.7 |
| 3-NITROANILINE | ND | 9.4 | 4.7 |
| 4,6-DINITRO-2-METHYLPHENOL | ND | 19 | 9.4 |
| 4-BROMOPHENYL-PHENYL ETHER | ND | 19 | 6.6 |
| 4-CHLORO-3-METHYLPHENOL | ND | 9.4 | 4.7 |
| 4-CHLOROANILINE | ND | 9.4 | 4.7 |
| 4-CHLOROPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-METHYLPHENOL (1) | ND | 9.4 | 4.7 |
| 4-NITROANILINE | ND | 9.4 | 4.7 |
| 4-NITROPHENOL | ND | 19 | 4.7 |
| ACENAPHTHENE | ND | 9.4 | 4.7 |
| ACENAPHTHYLENE | ND | 9.4 | 4.7 |
| ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)PYRENE | ND | 9.4 | 4.7 |
| BENZO(B)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(K)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(G,H,I)PERYLENE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHOXY)METHANE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-CHLOROISOPROPYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-ETHYLHEXYL)PHTHALATE | ND | 19 | 9.4 |
| BUTYLBENZYLPHTHALATE | ND | 9.4 | 4.7 |
| CHRYSENE | ND | 9.4 | 4.7 |
| DI-N-BUTYLPHTHALATE | ND | 9.4 | 4.7 |
| DI-N-OCTYLPHTHALATE | ND | 9.4 | 4.7 |
| DIBENZO(A,H)ANTHRACENE | ND | 9.4 | 4.7 |
| DIBENZOFURAN | ND | 9.4 | 4.7 |
| DIETHYLPHTHALATE | ND | 19 | 5.6 |
| DIMETHYLPHTHALATE | ND | 19 | 4.7 |
| FLUORANTHENE | ND | 9.4 | 4.7 |
| FLUORENE | ND | 9.4 | 4.7 |
| HEXACHLOROBENZENE | ND | 19 | 5.6 |
| HEXACHLOROCYCLOPENTADIENE | ND | 9.4 | 4.7 |
| HEXACHLOROETHANE | ND | 9.4 | 4.7 |
| INDENO(1,2,3-CD)PYRENE | ND | 9.4 | 4.7 |
| ISOPHORONE | ND | 9.4 | 4.7 |
| N-NITROSO-DI-N-PROPYLAMINE | ND | 9.4 | 4.7 |
| N-NITROSDIPHENYLAMINE (2) | ND | 9.4 | 4.7 |
| NITROBENZENE | ND | 9.4 | 4.7 |
| PENTACHLOROPHENOL | ND | 19 | 9.4 |
| PHENANTHRENE | ND | 19 | 5.6 |
| PHENOL | ND | 9.4 | 4.7 |
| PYRENE | ND | 9.4 | 4.7 |
| 1,1'-BIPHENYL | ND | 9.4 | 4.7 |
| ACETOPHENONE | ND | 9.4 | 2.3 |
| ATRAZINE | ND | 19 | 9.4 |
| BENZALDEHYDE | ND | 9.4 | 4.7 |
| CAPROLACTAM | ND | 9.4 | 4.7 |
| CARBAZOLE | ND | 9.4 | 4.7 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| 2,4,6-TRIBROMOPHENOL | 85 | 25-134 |
| 2-FLUOROBIPHENYL | 77 | 45-125 |
| 2-FLUOROPHENOL | 71 | 25-125 |
| NITROBENZENE-D5 | 83 | 35-125 |
| PHENOL-D5 | 75 | 25-125 |
| TERPHENYL-D14 | 107 | 42-126 |

RL: Reporting Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

Revised Report

3017

SW 3520C/8270C
SEMI VOLATILE ORGANICS BY GC/MS

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=====
Client   : TETRA TECH, FW, INC.      Date Collected: 11/10/04
Project  : MFA SITE 1, CTD 86        Date Received: 11/11/04
Batch No. : 04K099                  Date Extracted: 11/15/04 18:00
Sample ID: 86-S1-068                Date Analyzed: 12/03/04 18:57
Lab Samp ID: K099-07                 Dilution Factor: .94
Lab File ID: RLH039                  Matrix: WATER
Ext Btch ID: SVK019W                 % Moisture: NA
Calib. Ref.: RLH007                  Instrument ID: T-041
=====
```

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 2,4,5-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4,6-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DIMETHYLPHENOL | ND | 9.4 | 4.7 |
| 2,4-DINITROPHENOL | ND | 19 | 9.4 |
| 2,4-DINITROTOLUENE | ND | 19 | 9.4 |
| 2,6-DINITROTOLUENE | ND | 19 | 5.6 |
| 2-CHLORONAPHTHALENE | ND | 9.4 | 4.7 |
| 2-CHLOROPHENOL | ND | 9.4 | 4.7 |
| 2-METHYLNAPHTHALENE | ND | 9.4 | 4.7 |
| 2-METHYLPHENOL | ND | 9.4 | 4.7 |
| 2-NITROANILINE | ND | 19 | 5.6 |
| 2-NITROPHENOL | ND | 9.4 | 4.7 |
| 3,3'-DICHLOROBENZIDINE | ND | 9.4 | 4.7 |
| 3-NITROANILINE | ND | 9.4 | 4.7 |
| 4,6-DINITRO-2-METHYLPHENOL | ND | 19 | 9.4 |
| 4-BROMOPHENYL-PHENYL ETHER | ND | 19 | 6.6 |
| 4-CHLORO-3-METHYLPHENOL | ND | 9.4 | 4.7 |
| 4-CHLORDANILINE | ND | 9.4 | 4.7 |
| 4-CHLOROPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-METHYLPHENOL (1) | ND | 9.4 | 4.7 |
| 4-NITROANILINE | ND | 9.4 | 4.7 |
| 4-NITROPHENOL | ND | 19 | 4.7 |
| ACENAPHTHENE | ND | 9.4 | 4.7 |
| ACENAPHTHYLENE | ND | 9.4 | 4.7 |
| ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)PYRENE | ND | 9.4 | 4.7 |
| BENZO(B)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(K)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(G,H,I)PERYLENE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHOXY)METHANE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-CHLOROISOPROPYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-ETHYLHEXYL)PHTHALATE | ND | 19 | 9.4 |
| BUTYLBENZYLPHTHALATE | ND | 9.4 | 4.7 |
| CHRYSENE | ND | 9.4 | 4.7 |
| DI-N-BUTYLPHTHALATE | ND | 9.4 | 4.7 |
| DI-N-OCTYLPHTHALATE | ND | 9.4 | 4.7 |
| DIBENZO(A,H)ANTHRACENE | ND | 9.4 | 4.7 |
| DIBENZO(F,K)ANTHRACENE | ND | 9.4 | 4.7 |
| DITHYLPHTHALATE | ND | 19 | 5.6 |
| DIMETHYLPHTHALATE | ND | 19 | 4.7 |
| FLUORANTHENE | ND | 9.4 | 4.7 |
| FLUORENE | ND | 9.4 | 4.7 |
| HEXACHLOROBENZENE | ND | 19 | 5.6 |
| HEXACHLOROCYCLOPENTADIENE | ND | 9.4 | 4.7 |
| HEXACHLOROETHANE | ND | 9.4 | 4.7 |
| INDENO(1,2,3-CD)PYRENE | ND | 9.4 | 4.7 |
| ISOPHORONE | ND | 9.4 | 4.7 |
| N-NITROSO-DI-N-PROPYLAMINE | ND | 9.4 | 4.7 |
| N-NITROSODIPHENYLAMINE (2) | ND | 9.4 | 4.7 |
| NITROBENZENE | ND | 9.4 | 4.7 |
| PENTACHLOROPHENOL | ND | 19 | 9.4 |
| PHENANTHRENE | ND | 19 | 5.6 |
| PHENOL | ND | 9.4 | 4.7 |
| PYRENE | ND | 9.4 | 4.7 |
| 1,1'-BIPHENYL | ND | 9.4 | 4.7 |
| ACETOPHENONE | ND | 9.4 | 2.5 |
| ATRAZINE | ND | 19 | 9.4 |
| BENZALDEHYDE | ND | 9.4 | 4.7 |
| CAPROLACTAM | ND | 9.4 | 4.7 |
| CARBAZOLE | ND | 9.4 | 4.7 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| 2,4,6-TRIBROMOPHENOL | 88 | 25-134 |
| 2-FLUOROBIPHENYL | 80 | 43-125 |
| 2-FLUOROPHENOL | 78 | 25-125 |
| NITROBENZENE-D5 | 89 | 36-125 |
| PHENOL-D5 | 76 | 25-125 |
| TERPHENYL-D14 | 111 | 42-126 |

RL: Reporting Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

Revised Report

3018

CASE NARRATIVE

CLIENT: TETRA TECH FW, INC.
PROJECT: MFA, SITE 1, CTO 86
SDG: 04K099

**SW3520C/8081A
PESTICIDES**

Six (6) water samples were received on 11/11/04 for Pesticides analysis by Method 3520C/8081A in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW846, 3rd ed.

1. Holding Time

Analytical holding time was met.

2. Instrument Performance and Calibration

Initial calibration was at six points for Pesticides, all RSDs were within 20%. All continue calibrations were analyzed at 12-hour interval and mean recoveries were within 85-115%.

Endrin and DDT breakdown were within QC limit.

3. Method Blank

Method blank was free of contamination at the reporting limit.

4. Surrogate Recovery

Recoveries were within QC limit.

5. Lab Control Sample/Lab Control Sample Duplicate

All recoveries were within QC limit.

6. Matrix Spike/Matrix Spike Duplicate

Sample K099-07 was spiked. All recoveries were within QC limit.

7. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criteria were met.

When sample results are confirmed by a second column, the relative percentage difference (RPD) between the two results is calculated. If RPD is less than 40%, and no evidence of chromatographic problems, the higher result is reported. If RPD is greater than 40%, the chromatogram is checked for anomalies and results are selected based on the best professional judgement. If no evidence of any chromatographic problems, the higher result is reported.

SW3520C/8081A
PESTICIDES

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=====
Client       : TETRA TECH FW, INC.      Date Collected: 11/09/04
Project      : MFA, SITE 1, CTO 86      Date Received: 11/11/04
Batch No.    : 04K099                   Date Extracted: 11/16/04 19:00
Sample ID:   86-S1-063                   Date Analyzed: 11/18/04 11:11
Lab Samp ID: K099-02R                     Dilution Factor: .94
Lab File ID: SK17047A                     Matrix          : WATER
Ext Btch ID: CPK014W                     % Moisture       : NA
Calib. Ref.: SK17035A                     Instrument ID    : GCT008
=====
```

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---------------------|-------------------|--------------|---------------|
| ALPHA-BHC | (ND) ND | .047 | .0094 |
| GAMMA-BHC (LINDANE) | (ND) ND | .047 | .0094 |
| BETA-BHC | (ND) ND | .047 | .0094 |
| HEPTACHLOR | (ND) .038J | .047 | .0094 |
| DELTA-BHC | (ND) ND | .047 | .0094 |
| ALDRIN | (ND) ND | .047 | .0094 |
| HEPTACHLOR EPOXIDE | (ND) ND | .047 | .0094 |
| GAMMA-CHLORDANE | .026J (ND) | .047 | .0094 |
| ALPHA-CHLORDANE | (ND) ND | .047 | .0094 |
| ENDOSULFAN I | (ND) ND | .047 | .028 |
| 4,4'-DDE | (ND) ND | .094 | .028 |
| DIELDRIN | (ND) ND | .19 | .094 |
| ENDRIN | (ND) ND | .094 | .019 |
| 4,4'-DDD | (ND) ND | .094 | .028 |
| ENDOSULFAN II | (ND) ND | .094 | .019 |
| 4,4'-DDT | (ND) ND | .094 | .019 |
| ENDRIN ALDEHYDE | (ND) ND | .094 | .019 |
| ENDOSULFAN SULFATE | (ND) ND | .094 | .019 |
| ENDRIN KETONE | (ND) ND | .094 | .019 |
| METHOXYCHLOR | (ND) ND | .47 | .094 |
| TOXAPHENE | (ND) ND | 2.8 | 1.2 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| TETRACHLORO-M-XYLENE | 62 (69) | 30-130 |
| DECACHLOROBIPHENYL | 81 (97) | 30-130 |

RL : Reporting limit
Left of | is related to first column ; Right of | related to second column
() included the reported column

Revised Report

5004

SW3520C/8081A
PESTICIDES

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=====
Client       : TETRA TECH FW, INC.      Date Collected: 11/09/04
Project      : MFA, SITE 1, CTO 86      Date Received: 11/11/04
Batch No.    : 04K099                   Date Extracted: 11/16/04 19:00
Sample ID    : 86-S1-064                Date Analyzed: 11/18/04 11:36
Lab Samp ID  : K099-03R                 Dilution Factor: .94
Lab File ID  : SK17048A                 Matrix          : WATER
Ext Btch ID  : CPK014W                  % Moisture       : NA
Calib. Ref.  : SK17035A                 Instrument ID    : GCT008
=====

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| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|---------------------|-------------------|--------------|---------------|
| ALPHA-BHC | (ND) ND | .047 | .0094 |
| GAMMA-BHC (LINDANE) | (ND) ND | .047 | .0094 |
| BETA-BHC | (ND) ND | .047 | .0094 |
| HEPTACHLOR | (ND) ND | .047 | .0094 |
| DELTA-BHC | (ND) ND | .047 | .0094 |
| ALDRIN | (ND) ND | .047 | .0094 |
| HEPTACHLOR EPOXIDE | (ND) ND | .047 | .0094 |
| GAMMA-CHLORDANE | .027 (ND) | .047 | .0094 |
| ALPHA-CHLORDANE | (ND) ND | .047 | .0094 |
| ENDOSULFAN I | (ND) ND | .047 | .028 |
| 4,4'-DDE | (ND) ND | .094 | .028 |
| DIELDRIN | (ND) ND | .19 | .094 |
| ENDRIN | (ND) ND | .094 | .019 |
| 4,4'-DDD | (ND) ND | .094 | .028 |
| ENDOSULFAN II | (ND) ND | .094 | .019 |
| 4,4'-DDT | (ND) ND | .094 | .019 |
| ENDRIN ALDEHYDE | (ND) ND | .094 | .019 |
| ENDOSULFAN SULFATE | (ND) ND | .094 | .019 |
| ENDRIN KETONE | (ND) ND | .094 | .019 |
| METHOXYCHLOR | (ND) ND | .47 | .094 |
| TOXAPHENE | (ND) ND | 2.8 | 1.2 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| TETRACHLORO-M-XYLENE | 69 (74) | 30-130 |
| DECACHLOROBIPHENYL | 88 (103) | 30-130 |

RL : Reporting limit
Left of | is related to first column ; Right of | related to second column
() included the reported column

Revised Report

5005

SW3520C/8081A
PESTICIDES

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=====
Client       : TETRA TECH FW, INC.      Date Collected: 11/10/04
Project      : MFA, SITE 1, CTO 86      Date Received: 11/11/04
Batch No.    : 04K099                   Date Extracted: 11/16/04 19:00
Sample ID:   86-S1-065                   Date Analyzed: 11/18/04 12:02
Lab Samp ID: K099-04R                     Dilution Factor: .94
Lab File ID: SK17049A                     Matrix          : WATER
Ext Btch ID: CPK014W                       % Moisture       : NA
Calib. Ref.: SK17035A                     Instrument ID    : GCT008
=====

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| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|----------------------|-------------------|--------------|---------------|
| ALPHA-BHC | (ND) ND | .047 | .0094 .0094 |
| GAMMA-BHC (LINDANE) | (ND) ND | .047 | .0094 .0094 |
| BETA-BHC | (ND) ND | .047 | .0094 .0094 |
| HEPTACHLOR | (ND) ND | .047 | .0094 .0094 |
| DELTA-BHC | (ND) ND | .047 | .0094 .0094 |
| ALDRIN | (ND) .035J | .047 | .0094 .0094 |
| HEPTACHLOR EPOXIDE | (ND) ND | .047 | .0094 .0094 |
| GAMMA-CHLORDANE | (ND) ND | .047 | .0094 .0094 |
| ALPHA-CHLORDANE | (ND) ND | .047 | .0094 .0094 |
| ENDOSULFAN I | (ND) ND | .047 | .028 .028 |
| 4,4'-DDE | (ND) ND | .094 | .028 .028 |
| DIELDRIN | (ND) ND | .19 | .094 .094 |
| ENDRIN | (ND) ND | .094 | .019 .019 |
| 4,4'-DDD | (ND) ND | .094 | .028 .028 |
| ENDOSULFAN II | (ND) ND | .094 | .019 .019 |
| 4,4'-DDT | (ND) ND | .094 | .019 .019 |
| ENDRIN ALDEHYDE | (ND) ND | .094 | .019 .019 |
| ENDOSULFAN SULFATE | (ND) ND | .094 | .019 .019 |
| ENDRIN KETONE | (ND) ND | .094 | .019 .019 |
| METHOXYCHLOR | (ND) ND | .47 | .094 .094 |
| TOXAPHENE | (ND) ND | 2.8 | 1.2 1.2 |
| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT | |
| TETRACHLORO-M-XYLENE | 94 (97) | 30-130 | |
| DECACHLOROBIPHENYL | 84 (103) | 30-130 | |

RL : Reporting limit
Left of | is related to first column ; Right of | related to second column
() included the reported column

Revised Report

5008

SW3520C/8081A
PESTICIDES

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=====
Client       : TETRA TECH FW, INC.      Date Collected: 11/10/04
Project      : MFA, SITE 1, CTO 86      Date Received: 11/11/04
Batch No.    : 04K099                   Date Extracted: 11/16/04 19:00
Sample ID:   86-S1-066                  Date Analyzed: 11/18/04 12:27
Lab Samp ID: K099-05R                   Dilution Factor: .94
Lab File ID: SK17050A                   Matrix          : WATER
Ext Btch ID: CPK014W                     % Moisture       : NA
Calib. Ref.: SK17035A                   Instrument ID    : GCT008
=====
```

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|----------------------|-------------------|--------------|---------------|
| ALPHA-BHC | (ND) ND | .047 | .0094 |
| GAMMA-BHC (LINDANE) | (ND) ND | .047 | .0094 |
| BETA-BHC | (ND) ND | .047 | .0094 |
| HEPTACHLOR | (ND) ND | .047 | .0094 |
| DELTA-BHC | (ND) ND | .047 | .0094 |
| ALDRIN | (ND) .024J | .047 | .0094 |
| HEPTACHLOR EPOXIDE | (ND) ND | .047 | .0094 |
| GAMMA-CHLORDANE | (ND) ND | .047 | .0094 |
| ALPHA-CHLORDANE | (ND) ND | .047 | .0094 |
| ENDOSULFAN I | (ND) ND | .047 | .028 |
| 4,4'-DDE | (ND) ND | .094 | .028 |
| DIELDRIN | (ND) ND | .19 | .094 |
| ENDRIN | (ND) ND | .094 | .019 |
| 4,4'-DDD | (ND) ND | .094 | .028 |
| ENDOSULFAN II | (ND) ND | .094 | .019 |
| 4,4'-DDT | (ND) ND | .094 | .019 |
| ENDRIN ALDEHYDE | (ND) ND | .094 | .019 |
| ENDOSULFAN SULFATE | (ND) ND | .094 | .019 |
| ENDRIN KETONE | (ND) .032J | .094 | .019 |
| METHOXYCHLOR | (ND) ND | .47 | .094 |
| TOXAPHENE | (ND) ND | 2.8 | 1.2 |
| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT | |
| TETRACHLORO-M-XYLENE | 85 (93) | 30-130 | |
| DECACHLOROBIPHENYL | 83 (100) | 30-130 | |

RL : Reporting limit
Left of | is related to first column ; Right of | related to second column
() included the reported column

Revised Report

5009

SW3520C/8081A
PESTICIDES

```
=====
Client      : TETRA TECH FW, INC.      Date Collected: 11/10/04
Project     : MFA, SITE 1, CTO 86      Date Received: 11/11/04
Batch No.   : 04K099                  Date Extracted: 11/16/04 19:00
Sample ID: 86-S1-067                  Date Analyzed: 11/18/04 12:52
Lab Samp ID: K099-06R                  Dilution Factor: .94
Lab File ID: SK17051A                  Matrix          : WATER
Ext Btch ID: CPK014W                  % Moisture       : NA
Calib. Ref.: SK17035A                  Instrument ID    : GCT008
=====
```

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|----------------------|-------------------|--------------|---------------|
| ALPHA-BHC | .017J (ND) | .047 | .0094 |
| GAMMA-BHC (LINDANE) | (ND) ND | .047 | .0094 |
| BETA-BHC | (ND) ND | .047 | .0094 |
| HEPTACHLOR | (ND) ND | .047 | .0094 |
| DELTA-BHC | (ND) ND | .047 | .0094 |
| ALDRIN | .034J (ND) | .047 | .0094 |
| HEPTACHLOR EPOXIDE | (ND) ND | .047 | .0094 |
| GAMMA-CHLORDANE | (ND) ND | .047 | .0094 |
| ALPHA-CHLORDANE | (ND) ND | .047 | .0094 |
| ENDOSULFAN I | (ND) ND | .047 | .028 |
| 4,4'-DDE | (ND) ND | .094 | .028 |
| DIELDRIN | (ND) ND | .19 | .094 |
| ENDRIN | (ND) ND | .094 | .019 |
| 4,4'-DDD | (ND) ND | .094 | .028 |
| ENDOSULFAN II | (ND) ND | .094 | .019 |
| 4,4'-DDT | (ND) ND | .094 | .019 |
| ENDRIN ALDEHYDE | (ND) ND | .094 | .019 |
| ENDOSULFAN SULFATE | (ND) ND | .094 | .019 |
| ENDRIN KETONE | (ND) ND | .094 | .019 |
| METHOXYCHLOR | (ND) ND | .47 | .094 |
| TOXAPHENE | (ND) ND | 2.8 | 1.2 |
| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT | |
| TETRACHLORO-M-XYLENE | (101) 95 | 30-130 | |
| DECACHLOROBIPHENYL | 83 (99) | 30-130 | |

RL : Reporting limit
Left of | is related to first column ; Right of | related to second column
() included the reported column

Revised Report

5012

SW3520C/8081A
 PESTICIDES

```

=====
Client       : TETRA TECH FW, INC.      Date Collected: 11/10/04
Project      : MFA, SITE 1, CTO 86      Date Received: 11/11/04
Batch No.    : 04K099                   Date Extracted: 11/16/04 19:00
Sample ID:   86-S1-068                   Date Analyzed: 11/18/04 13:18
Lab Samp ID: K099-07R                     Dilution Factor: .94
Lab File ID: SK17052A                     Matrix          : WATER
Ext Btch ID: CPK014W                       % Moisture       : NA
Calib. Ref.: SK17035A                     Instrument ID    : GCT008
=====
  
```

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|----------------------|-------------------|--------------|---------------|
| ALPHA-BHC | (ND) ND | .047 | .0094 |
| GAMMA-BHC (LINDANE) | (ND) ND | .047 | .0094 |
| BETA-BHC | (ND) ND | .047 | .0094 |
| HEPTACHLOR | (ND) ND | .047 | .0094 |
| DELTA-BHC | (ND) ND | .047 | .0094 |
| ALDRIN | (ND) .018J | .047 | .0094 |
| HEPTACHLOR EPOXIDE | (ND) ND | .047 | .0094 |
| GAMMA-CHLORDANE | (ND) ND | .047 | .0094 |
| ALPHA-CHLORDANE | (ND) ND | .047 | .0094 |
| ENDOSULFAN I | (ND) ND | .047 | .028 |
| 4,4'-DDE | (ND) ND | .094 | .028 |
| DIELDRIN | (ND) ND | .19 | .094 |
| ENDRIN | (ND) ND | .094 | .019 |
| 4,4'-DDD | (ND) ND | .094 | .028 |
| ENDOSULFAN II | (ND) ND | .094 | .019 |
| 4,4'-DDT | (ND) ND | .094 | .019 |
| ENDRIN ALDEHYDE | (ND) ND | .094 | .019 |
| ENDOSULFAN SULFATE | (ND) ND | .094 | .019 |
| ENDRIN KETONE | (ND) ND | .094 | .019 |
| METHOXYCHLOR | (ND) ND | .47 | .094 |
| TOXAPHENE | (ND) ND | 2.8 | 1.2 |
| | | | |
| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT | |
| TETRACHLORO-M-XYLENE | 73 (82) | 30-130 | |
| DECACHLOROBIPHENYL | 82 (98) | 30-130 | |

RL : Reporting limit
 Left of | is related to first column ; Right of | related to second column
 () included the reported column

Revised Report

5013

CASE NARRATIVE

CLIENT: TETRA TECH FW, INC.

PROJECT: MFA, SITE 1, CTO 86

SDG: 04K099

SW3520C/8082 PCBs

Six (6) water samples were received on 11/11/04 for PCBs analysis by Method 3520C/8082 in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW846, 3rd ed.

1. Holding Time

Analytical holding time was met.

2. Instrument Performance and Calibration

Initial calibration was five points for PCB-1016 and PCB-1260, all RSDs were within 20%. All continue calibrations were analyzed at 12-hour interval and all recoveries were within 85-115%.

3. Method Blank

Method blank was free of contamination at the reporting limit.

4. Surrogate Recovery

Recoveries were within QC limit.

5. Lab Control Sample/Lab Control Sample Duplicate

All recoveries were within QC limits.

6. Matrix Spike/Matrix Spike Duplicate

Sample K099-07 was spiked. All recoveries were within QC limit.

7. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criteria were met.

SW3520C/8082
PCBs

```
=====
Client       : TETRA TECH FW, INC.      Date Collected: 11/09/04
Project      : MFA, SITE 1, CTO 86      Date Received: 11/11/04
Batch No.    : 04K099                   Date Extracted: 11/16/04 19:00
Sample ID    : 86-S1-063                Date Analyzed: 11/18/04 11:11
Lab Samp ID  : K099-02R                  Dilution Factor: .94
Lab File ID  : SK17047A                  Matrix           : WATER
Ext Btch ID  : CPK014W                   % Moisture        : NA
Calib. Ref.  : SK17038A                  Instrument ID     : GCT008
=====
```

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|------------|-------------------|--------------|---------------|
| PCB-1016 | (ND)ND | .94 | .24 |
| PCB-1221 | (ND)ND | .94 | .24 |
| PCB-1232 | (ND)ND | .94 | .24 |
| PCB-1242 | (ND)ND | .94 | .24 |
| PCB-1248 | (ND)ND | .94 | .24 |
| PCB-1254 | (ND)ND | .94 | .24 |
| PCB-1260 | (ND)ND | .94 | .24 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| TETRACHLORD-M-XYLENE | (61)69 | 30-130 |
| DECACHLOROBIPHENYL | (81)104 | 30-130 |

RL: Reporting Limit
Left of | is related to first column ; Right of | related to second column
() included the reported column
* Out side of QC Limit

Revised Report

5143

SW3520C/8082
PCBs

```
=====
Client       : TETRA TECH FW, INC.      Date Collected: 11/09/04
Project      : MFA, SITE 1, CTO 86      Date Received: 11/11/04
Batch No.    : 04K099                   Date Extracted: 11/16/04 19:00
Sample ID    : 86-S1-064                 Date Analyzed: 11/18/04 11:36
Lab Samp ID  : K099-03R                   Dilution Factor: .94
Lab File ID  : SK17048A                   Matrix          : WATER
Ext Btch ID  : CPK014W                    % Moisture       : NA
Calib. Ref.  : SK17038A                   Instrument ID    : GCT008
=====
```

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|------------|-------------------|--------------|---------------|
| PCB-1016 | (ND) ND | .94 | .24 .24 |
| PCB-1221 | (ND) ND | .94 | .24 .24 |
| PCB-1232 | (ND) ND | .94 | .24 .24 |
| PCB-1242 | (ND) ND | .94 | .24 .24 |
| PCB-1248 | (ND) ND | .94 | .24 .24 |
| PCB-1254 | (ND) ND | .94 | .24 .24 |
| PCB-1260 | (ND) ND | .94 | .24 .24 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| TETRACHLORO-M-XYLENE | (64) 74 | 30-130 |
| DECACHLOROBIPHENYL | (87) 110 | 30-130 |

RL: Reporting Limit
 Left of | is related to first column ; Right of | related to second column
 () included the reported column
 * Out side of QC Limit

Revised Report

5144

SW3520C/8082
PCBs

```
=====
Client   : TETRA TECH FW, INC.      Date Collected: 11/10/04
Project  : MFA, SITE 1, CTO 86      Date Received: 11/11/04
Batch No. : 04K099                  Date Extracted: 11/16/04 19:00
Sample ID: 86-S1-065                Date Analyzed: 11/18/04 12:02
Lab Samp ID: K099-04R               Dilution Factor: .94
Lab File ID: SK17049A               Matrix       : WATER
Ext Btch ID: CPK014W                % Moisture    : NA
Calib. Ref.: SK17038A               Instrument ID : GCT008
=====
```

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|------------|-------------------|--------------|---------------|
| PCB-1016 | (ND) ND | .94 | .24 .24 |
| PCB-1221 | (ND) ND | .94 | .24 .24 |
| PCB-1232 | (ND) ND | .94 | .24 .24 |
| PCB-1242 | (ND) ND | .94 | .24 .24 |
| PCB-1248 | (ND) ND | .94 | .24 .24 |
| PCB-1254 | (ND) ND | .94 | .24 .24 |
| PCB-1260 | (ND) ND | .94 | .24 .24 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| TETRACHLORO-M-XYLENE | (83) 98 | 30-130 |
| DECACHLOROBIPHENYL | (84) 111 | 30-130 |

RL: Reporting Limit
Left of | is related to first column ; Right of | related to second column
() included the reported column
* Out side of QC Limit

Revised Report

5147

SW3520C/8082
PCBs

```
=====
Client       : TETRA TECH FW, INC.      Date Collected: 11/10/04
Project      : MFA, SITE 1, CTO 86      Date Received: 11/11/04
Batch No.    : 04K099                   Date Extracted: 11/16/04 19:00
Sample ID    : 86-S1-066                 Date Analyzed: 11/18/04 12:27
Lab Samp ID  : K099-05R                  Dilution Factor: .94
Lab File ID  : SK17050A                  Matrix          : WATER
Ext Btch ID  : CPK014W                   % Moisture       : NA
Calib. Ref.: SK17038A                   Instrument ID    : GCT008
=====
```

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|------------|-------------------|--------------|---------------|
| PCB-1016 | (ND) ND | .94 | .24 .24 |
| PCB-1221 | (ND) ND | .94 | .24 .24 |
| PCB-1232 | (ND) ND | .94 | .24 .24 |
| PCB-1242 | (ND) ND | .94 | .24 .24 |
| PCB-1248 | (ND) ND | .94 | .24 .24 |
| PCB-1254 | (ND) ND | .94 | .24 .24 |
| PCB-1260 | (ND) ND | .94 | .24 .24 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| TETRACHLORO-M-XYLENE | (80) 92 | 30-130 |
| DECACHLOROBIPHENYL | (82) 107 | 30-130 |

RL: Reporting Limit
 Left of | is related to first column ; Right of | related to second column
 () included the reported column
 * Out side of QC Limit

Revised Report

5148

SW3520C/8082
PCBs

```

=====
Client      : TETRA TECH FW, INC.      Date Collected: 11/10/04
Project     : MFA, SITE 1, CTO 86      Date Received: 11/11/04
Batch No.   : 04K099                  Date Extracted: 11/16/04 19:00
Sample ID   : 86-S1-067                Date Analyzed: 11/18/04 12:52
Lab Samp ID : K099-06R                  Dilution Factor: .94
Lab File ID : SK17051A                  Matrix          : WATER
Ext Btch ID : CPK014W                   % Moisture       : NA
Calib. Ref. : SK17038A                  Instrument ID    : GCT008
=====
  
```

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|------------|-------------------|--------------|---------------|
| PCB-1016 | (ND) ND | .94 | .24 .24 |
| PCB-1221 | (ND) ND | .94 | .24 .24 |
| PCB-1232 | (ND) ND | .94 | .24 .24 |
| PCB-1242 | (ND) ND | .94 | .24 .24 |
| PCB-1248 | (ND) ND | .94 | .24 .24 |
| PCB-1254 | (ND) ND | .94 | .24 .24 |
| PCB-1260 | (ND) ND | .94 | .24 .24 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| TETRACHLORO-M-XYLENE | (84) 95 | 30-130 |
| DECACHLOROBIPHENYL | (82) 106 | 30-130 |

RL: Reporting Limit
 Left of | is related to first column ; Right of | related to second column
 () included the reported column
 * Out side of QC Limit

Revised Report

5151

SW3520C/8082
PCBs

```
=====
Client       : TETRA TECH FW, INC.      Date Collected: 11/10/04
Project      : MFA, SITE 1, CTO 86      Date Received: 11/11/04
Batch No.    : 04K099                   Date Extracted: 11/16/04 19:00
Sample ID:   86-S1-068                  Date Analyzed: 11/18/04 13:18
Lab Samp ID: K099-07R                   Dilution Factor: .94
Lab File ID: SK17052A                   Matrix           : WATER
Ext Btch ID: CPK014W                    % Moisture        : NA
Calib. Ref.: SK17038A                   Instrument ID    : GCT008
=====
```

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|------------|-------------------|--------------|---------------|
| PCB-1016 | (ND) ND | .94 | .24 .24 |
| PCB-1221 | (ND) ND | .94 | .24 .24 |
| PCB-1232 | (ND) ND | .94 | .24 .24 |
| PCB-1242 | (ND) ND | .94 | .24 .24 |
| PCB-1248 | (ND) ND | .94 | .24 .24 |
| PCB-1254 | (ND) ND | .94 | .24 .24 |
| PCB-1260 | (ND) ND | .94 | .24 .24 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| TETRACHLORO-M-XYLENE | (71) 82 | 30-130 |
| DECACHLOROBIPHENYL | (81) 106 | 30-130 |

RL: Reporting Limit
 Left of | is related to first column ; Right of | related to second column
 () included the reported column
 * Out side of QC Limit

Revised Report

5153

CASE NARRATIVE

CLIENT: TETRA TECH FW, INC.

PROJECT: MFA, SITE 1, CTO 86

SDG: 04K099

**METHOD 7470A
DISSOLVED MERCURY BY COLD VAPOR**

Six (6) water samples were received on 11/11/04 for Dissolved Mercury analysis by Method 7470A in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW846, 3rd edition.

1. Holding Time

Analysis met holding time criteria.

2. Method Blank

Method blank was free of contamination at the reporting limit.

3. Lab Control Sample/Lab Control Sample Duplicate

Lab control results were within QC limit.

4. Serial Dilution / Post-Analytical Spike

Sample K099-07 was analyzed for serial dilution and post-analytical spike. All QC requirements were met.

5. Matrix Spike/Matrix Spike Duplicate

Sample K099-07 was spiked. Recoveries were out of the QC limit.

6. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criteria were met with the aforementioned exception.

All samples were analyzed at DF 20 due to matrix interference of high salt leve.

METHOD 7470A
DISSOLVED MERCURY BY COLD VAPOR

Client : TETRA TECH FW, INC.
Project : MFA, SITE 1, CTD 86
Batch No. : 04K099

Matrix : WATER
Instrument ID : Y1047

| SAMPLE ID | EMAX SAMPLE ID | RESULTS (ug/L) | DLF | MOIST | RL (ug/L) | MDL (ug/L) | Analysis DATE/TIME | Extraction DATE/TIME | LFID | CAL REF | PREP BATCH | Collection DATE/TIME | Received DATE/TIME |
|-------------|-------------------|-------------------|-----|-------|--------------|---------------|-----------------------|-------------------------|------------|------------|------------|-------------------------|-----------------------|
| MBLK1W | HGK016WB | ND | 1 | NA | .2 | .1 | 11/18/04 16:07 | 11/17/04 16:00 | M47K019010 | M47K019008 | HGK016W | NA | 11/17/04 |
| LCS1W | HGK016WL | 4.96 | 1 | NA | .2 | .1 | 11/18/04 16:09 | 11/17/04 16:00 | M47K019011 | M47K019008 | HGK016W | NA | 11/17/04 |
| LCD1W | HGK016WC | 4.94 | 1 | NA | .2 | .1 | 11/18/04 16:11 | 11/17/04 16:00 | M47K019012 | M47K019008 | HGK016W | NA | 11/17/04 |
| 86-S1-068AS | K099-07A | 35.4 | 20 | NA | 4 | 2 | 11/18/04 16:56 | 11/17/04 16:00 | M47K019032 | M47K019030 | HGK016W | 11/10/04 | 11/11/04 |
| 86-S1-068 | K099-07 | ND | 20 | NA | 4 | 2 | 11/18/04 16:58 | 11/17/04 16:00 | M47K019033 | M47K019030 | HGK016W | 11/10/04 | 11/11/04 |
| 86-S1-068DL | K099-07T | ND | 100 | NA | 20 | 10 | 11/18/04 17:01 | 11/17/04 16:00 | M47K019034 | M47K019030 | HGK016W | 11/10/04 | 11/11/04 |
| 86-S1-068MS | K099-07M | 3.34J | 20 | NA | 4 | 2 | 11/18/04 17:03 | 11/17/04 16:00 | M47K019035 | M47K019030 | HGK016W | 11/10/04 | 11/11/04 |
| 86-S1-063 | K099-07S | 3.6J | 20 | NA | 4 | 2 | 11/18/04 17:05 | 11/17/04 16:00 | M47K019036 | M47K019030 | HGK016W | 11/10/04 | 11/11/04 |
| 86-S1-064 | K099-02 | ND | 20 | NA | 4 | 2 | 11/18/04 17:07 | 11/17/04 16:00 | M47K019037 | M47K019030 | HGK016W | 11/09/04 | 11/11/04 |
| 86-S1-065 | K099-03 | ND | 20 | NA | 4 | 2 | 11/18/04 17:09 | 11/17/04 16:00 | M47K019038 | M47K019030 | HGK016W | 11/09/04 | 11/11/04 |
| 86-S1-066 | K099-04 | ND | 20 | NA | 4 | 2 | 11/18/04 17:12 | 11/17/04 16:00 | M47K019039 | M47K019030 | HGK016W | 11/10/04 | 11/11/04 |
| 86-S1-066 | K099-05 | ND | 20 | NA | 4 | 2 | 11/18/04 17:14 | 11/17/04 16:00 | M47K019040 | M47K019030 | HGK016W | 11/10/04 | 11/11/04 |
| 86-S1-067 | K099-06 | ND | 20 | NA | 4 | 2 | 11/18/04 17:16 | 11/17/04 16:00 | M47K019041 | M47K019030 | HGK016W | 11/10/04 | 11/11/04 |

RL: Reporting Limit

Revised Report

7003

COLUMBIA ANALYTICAL SERVICES, INC.

Client: EMAX Laboratories, Inc.
Project: 04K099
Sample Matrix: Water

Service Request No.: K2409069
Date Received: 11/13/04

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of Columbia Analytical Services, Inc. (CAS). This report contains analytical results for samples designated for Tier III validation deliverables including summary forms and all of the associated raw data for each of the analyses. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

Six water samples were received for analysis at Columbia Analytical Services on 11/13/04. No discrepancies were noted upon initial sample inspection. The samples were received in good condition and consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4°C upon receipt at the laboratory.

Metals

Sample Notes and Discussion:

Due to the high salinity of sample matrix, all samples required pre-treatment using reductive precipitation prior to analysis by ICP/MS EPA 200.8. Analysis of Selenium was performed by hydride EPA 7742 due to the saline sample matrix.

Matrix Spike Recovery Exceptions:

The matrix spike recovery of Chromium for sample 86-S1-068 was outside control criteria. Recovery in the Laboratory Control Sample (LCS) was acceptable, which indicates the analytical batch was in control. The matrix spike outlier suggests a potential low bias in this matrix. No further corrective action was appropriate.

The matrix spike recovery of Cobalt for sample 86-S1-068 was outside the CAS control criteria as a result of the variability in the sample results. Variability between replicates was sufficient to bias the percent recoveries outside normal CAS control criteria. The associated QA/QC results (e.g. control sample, calibration standards, etc.) indicate the analysis was in control. Due to sample volume limitations no further corrective action was possible.

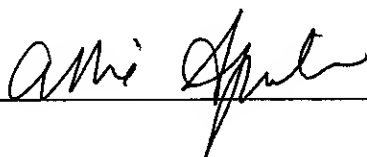
The control criterion for matrix spike recovery of Nickel for sample 86-S1-068 is not applicable. The analyte concentration in the sample was significantly higher than the added spike concentration, preventing accurate evaluation of the spike recovery.

Relative Percent Difference Exceptions:

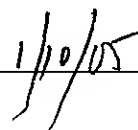
The Relative Percent Difference (RPD) for the replicate analysis of Cobalt in sample 86-S1-068 was outside the normal CAS control limits. Additional analysis of the associated field samples could not be performed because insufficient sample remained for testing. No further corrective action was possible. The data is flagged to indicate the problem.

No other anomalies associated with the analysis of these samples were observed.

Approved by _____



Date _____



DISSOLVED METALS

-1-

INORGANIC ANALYSIS DATA SHEET

Client: EMAX Laboratories, Inc.

Service Request: K2409069

Project No.: 04K099

Date Collected: 11/09/04

Project Name: NA

Date Received: 11/13/04

Matrix: WATER

Units: µg/L

Basis: NA

Sample Name: 86-S1-063

Lab Code: K2409069-001 DISS

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|-----------|-----------------|-------|-------|------|----------------|---------------|--------|---|----|
| Aluminum | 6010B | 50 | 50 | 1 | 12/9/04 | 12/12/04 | 50 | U | |
| Antimony | 200.8 | 1.000 | 0.120 | 1 | 12/9/04 | 12/13/04 | 2.200 | | |
| Arsenic | 200.8 | 0.50 | 0.02 | 1 | 12/29/04 | 1/3/05 | 1.74 | | |
| Barium | 200.8 | 1.000 | 0.600 | 1 | 12/9/04 | 12/13/04 | 481 | | |
| Beryllium | 200.8 | 0.020 | 0.001 | 1 | 12/29/04 | 1/3/05 | 0.005 | B | |
| Cadmium | 200.8 | 0.020 | 0.003 | 1 | 12/29/04 | 1/3/05 | 0.003 | U | |
| Chromium | 200.8 | 0.20 | 0.04 | 1 | 12/29/04 | 1/3/05 | 0.64 | | N |
| Cobalt | 200.8 | 0.020 | 0.002 | 1 | 12/29/04 | 1/3/05 | 0.727 | | *N |
| Copper | 200.8 | 0.10 | 0.01 | 1 | 12/29/04 | 1/3/05 | 0.11 | | |
| Lead | 200.8 | 0.020 | 0.009 | 1 | 12/29/04 | 1/3/05 | 0.009 | B | |
| Nickel | 200.8 | 0.20 | 0.02 | 1 | 12/29/04 | 1/3/05 | 4.04 | | |
| Selenium | 7742 | 1.0 | 0.3 | 2 | 12/9/04 | 1/6/05 | 0.3 | U | |
| Silver | 200.8 | 0.020 | 0.005 | 1 | 12/29/04 | 1/3/05 | 0.005 | U | |
| Thallium | 200.8 | 0.020 | 0.001 | 1 | 12/29/04 | 1/3/05 | 0.007 | B | |
| Vanadium | 6010B | 10.0 | 6.0 | 1 | 12/9/04 | 12/12/04 | 6.0 | U | |
| Zinc | 200.8 | 0.50 | 0.02 | 1 | 12/29/04 | 1/3/05 | 0.79 | | |

% Solids: 0.0

Comments:

DISSOLVED METALS

-1-

INORGANIC ANALYSIS DATA SHEET

Client: EMAX Laboratories, Inc.

Service Request: K2409069

Project No.: 04K099

Date Collected: 11/09/04

Project Name: NA

Date Received: 11/13/04

Matrix: WATER

Units: µg/L

Basis: .NA

Sample Name: 86-S1-064

Lab Code: K2409069-002 DISS

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|-----------|-----------------|-------|-------|------|----------------|---------------|--------|---|----|
| Aluminum | 6010B | 50 | 50 | 1 | 12/9/04 | 12/12/04 | 50 | U | |
| Antimony | 200.8 | 1.000 | 0.120 | 1 | 12/9/04 | 12/13/04 | 2.810 | | |
| Arsenic | 200.8 | 0.50 | 0.02 | 1 | 12/29/04 | 1/3/05 | 1.79 | | |
| Barium | 200.8 | 1.000 | 0.600 | 1 | 12/9/04 | 12/13/04 | 477 | | |
| Beryllium | 200.8 | 0.020 | 0.001 | 1 | 12/29/04 | 1/3/05 | 0.004 | B | |
| Cadmium | 200.8 | 0.020 | 0.003 | 1 | 12/29/04 | 1/3/05 | 0.003 | U | |
| Chromium | 200.8 | 0.20 | 0.04 | 1 | 12/29/04 | 1/3/05 | 0.62 | | N |
| Cobalt | 200.8 | 0.020 | 0.002 | 1 | 12/29/04 | 1/3/05 | 1.150 | | *N |
| Copper | 200.8 | 0.10 | 0.01 | 1 | 12/29/04 | 1/3/05 | 0.15 | | |
| Lead | 200.8 | 0.020 | 0.009 | 1 | 12/29/04 | 1/3/05 | 0.009 | U | |
| Nickel | 200.8 | 0.20 | 0.02 | 1 | 12/29/04 | 1/3/05 | 4.08 | | |
| Selenium | 7742 | 1.0 | 0.3 | 2 | 12/9/04 | 1/6/05 | 0.3 | U | |
| Silver | 200.8 | 0.020 | 0.005 | 1 | 12/29/04 | 1/3/05 | 0.005 | U | |
| Thallium | 200.8 | 0.020 | 0.001 | 1 | 12/29/04 | 1/3/05 | 0.001 | B | |
| Vanadium | 6010B | 10.0 | 6.0 | 1 | 12/9/04 | 12/12/04 | 6.0 | U | |
| Zinc | 200.8 | 0.50 | 0.02 | 1 | 12/29/04 | 1/3/05 | 0.50 | B | |

* Solids: 0.0

Comments:

DISSOLVED METALS

-1-

INORGANIC ANALYSIS DATA SHEET

Client: EMAX Laboratories, Inc.

Service Request: K2409069

Project No.: 04K099

Date Collected: 11/10/04

Project Name: NA

Date Received: 11/13/04

Matrix: WATER

Units: µg/L

Basis: .NA

Sample Name: 86-S1-065

Lab Code: K2409069-003 DISS

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|-----------|-----------------|-------|-------|------|----------------|---------------|--------|---|----|
| Aluminum | 6010B | 50 | 50 | 1 | 12/9/04 | 12/12/04 | 50 | U | |
| Antimony | 200.8 | 1.000 | 0.120 | 1 | 12/9/04 | 12/13/04 | 3.400 | | |
| Arsenic | 200.8 | 0.50 | 0.02 | 1 | 12/29/04 | 1/3/05 | 3.81 | | |
| Barium | 200.8 | 1.000 | 0.600 | 1 | 12/9/04 | 12/13/04 | 149 | | |
| Beryllium | 200.8 | 0.020 | 0.001 | 1 | 12/29/04 | 1/3/05 | 0.004 | B | |
| Cadmium | 200.8 | 0.020 | 0.003 | 1 | 12/29/04 | 1/3/05 | 0.003 | U | |
| Chromium | 200.8 | 0.20 | 0.04 | 1 | 12/29/04 | 1/3/05 | 0.73 | | N |
| Cobalt | 200.8 | 0.020 | 0.002 | 1 | 12/29/04 | 1/3/05 | 0.775 | | *N |
| Copper | 200.8 | 0.10 | 0.01 | 1 | 12/29/04 | 1/3/05 | 0.14 | | |
| Lead | 200.8 | 0.020 | 0.009 | 1 | 12/29/04 | 1/3/05 | 0.143 | | |
| Nickel | 200.8 | 0.20 | 0.02 | 1 | 12/29/04 | 1/3/05 | 4.24 | | |
| Selenium | 7742 | 1.0 | 0.3 | 2 | 12/9/04 | 1/6/05 | 0.3 | U | |
| Silver | 200.8 | 0.020 | 0.005 | 1 | 12/29/04 | 1/3/05 | 0.005 | U | |
| Thallium | 200.8 | 0.020 | 0.001 | 1 | 12/29/04 | 1/3/05 | 0.001 | U | |
| Vanadium | 6010B | 10.0 | 6.0 | 1 | 12/9/04 | 12/12/04 | 6.0 | U | |
| Zinc | 200.8 | 0.50 | 0.02 | 1 | 12/29/04 | 1/3/05 | 4.92 | | |

% Solids: 0.0

Comments:

DISSOLVED METALS

-1-

INORGANIC ANALYSIS DATA SHEET

Client: EMAX Laboratories, Inc.

Service Request: K2409069

Project No.: 04K099

Date Collected: 11/10/04

Project Name: NA

Date Received: 11/13/04

Matrix: WATER

Units: µg/L

Basis: NA

Sample Name: 86-S1-066

Lab Code: K2409069-004 DISS

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|-----------|-----------------|-------|-------|------|----------------|---------------|--------|---|----|
| Aluminum | 6010B | 50 | 50 | 1 | 12/9/04 | 12/12/04 | 50 | U | |
| Antimony | 200.8 | 1.000 | 0.120 | 1 | 12/9/04 | 12/13/04 | 3.650 | | |
| Arsenic | 200.8 | 0.50 | 0.02 | 1 | 12/29/04 | 1/3/05 | 3.88 | | |
| Barium | 200.8 | 1.000 | 0.600 | 1 | 12/9/04 | 12/13/04 | 141 | | |
| Beryllium | 200.8 | 0.020 | 0.001 | 1 | 12/29/04 | 1/3/05 | 0.008 | B | |
| Cadmium | 200.8 | 0.020 | 0.003 | 1 | 12/29/04 | 1/3/05 | 0.003 | U | |
| Chromium | 200.8 | 0.20 | 0.04 | 1 | 12/29/04 | 1/3/05 | 0.63 | | N |
| Cobalt | 200.8 | 0.020 | 0.002 | 1 | 12/29/04 | 1/3/05 | 1.280 | | *N |
| Copper | 200.8 | 0.10 | 0.01 | 1 | 12/29/04 | 1/3/05 | 0.16 | | |
| Lead | 200.8 | 0.020 | 0.009 | 1 | 12/29/04 | 1/3/05 | 0.009 | U | |
| Nickel | 200.8 | 0.20 | 0.02 | 1 | 12/29/04 | 1/3/05 | 4.10 | | |
| Selenium | 7742 | 1.0 | 0.3 | 2 | 12/9/04 | 1/6/05 | 0.3 | U | |
| Silver | 200.8 | 0.020 | 0.005 | 1 | 12/29/04 | 1/3/05 | 0.005 | U | |
| Thallium | 200.8 | 0.020 | 0.001 | 1 | 12/29/04 | 1/3/05 | 0.001 | U | |
| Vanadium | 6010B | 10.0 | 6.0 | 1 | 12/9/04 | 12/12/04 | 6.0 | U | |
| Zinc | 200.8 | 0.50 | 0.02 | 1 | 12/29/04 | 1/3/05 | 3.20 | | |

% Solids: 0.0

Comments:

DISSOLVED METALS

-1-

INORGANIC ANALYSIS DATA SHEET

Client: EMAX Laboratories, Inc.

Service Request: K2409069

Project No.: 04K099

Date Collected: 11/10/04

Project Name: NA

Date Received: 11/13/04

Matrix: WATER

Units: µg/L

Basis: NA

Sample Name: 86-S1-067

Lab Code: K2409069-005 DISS

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|-----------|-----------------|-------|-------|------|----------------|---------------|--------|---|----|
| Aluminum | 6010B | 50 | 50 | 1 | 12/9/04 | 12/12/04 | 50 | U | |
| Antimony | 200.8 | 1.000 | 0.120 | 1 | 12/9/04 | 12/13/04 | 2.720 | | |
| Arsenic | 200.8 | 0.50 | 0.02 | 1 | 12/29/04 | 1/3/05 | 11.5 | | |
| Barium | 200.8 | 1.000 | 0.600 | 1 | 12/9/04 | 12/13/04 | 250 | | |
| Beryllium | 200.8 | 0.020 | 0.001 | 1 | 12/29/04 | 1/3/05 | 0.015 | B | |
| Cadmium | 200.8 | 0.020 | 0.003 | 1 | 12/29/04 | 1/3/05 | 0.005 | B | |
| Chromium | 200.8 | 0.20 | 0.04 | 1 | 12/29/04 | 1/3/05 | 1.65 | | N |
| Cobalt | 200.8 | 0.020 | 0.002 | 1 | 12/29/04 | 1/3/05 | 1.980 | | *N |
| Copper | 200.8 | 0.10 | 0.01 | 1 | 12/29/04 | 1/3/05 | 0.17 | | |
| Lead | 200.8 | 0.020 | 0.009 | 1 | 12/29/04 | 1/3/05 | 0.021 | | |
| Nickel | 200.8 | 0.20 | 0.02 | 1 | 12/29/04 | 1/3/05 | 10.2 | | |
| Selenium | 7742 | 1.0 | 0.3 | 2 | 12/9/04 | 1/6/05 | 0.3 | U | |
| Silver | 200.8 | 0.020 | 0.005 | 1 | 12/29/04 | 1/3/05 | 0.005 | U | |
| Thallium | 200.8 | 0.020 | 0.001 | 1 | 12/29/04 | 1/3/05 | 0.002 | B | |
| Vanadium | 6010B | 10.0 | 6.0 | 1 | 12/9/04 | 12/12/04 | 6.0 | U | |
| Zinc | 200.8 | 0.50 | 0.02 | 1 | 12/29/04 | 1/3/05 | 2.22 | | |

% Solids: 0.0

Comments:

DISSOLVED METALS

-1-

INORGANIC ANALYSIS DATA SHEET

Client: EMAX Laboratories, Inc.

Service Request: K2409069

Project No.: 04K099

Date Collected: 11/10/04

Project Name: NA

Date Received: 11/13/04

Matrix: WATER

Units: µg/L

Basis: NA

Sample Name: 86-S1-068

Lab Code: K2409069-006 DISS

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|-----------|-----------------|-------|-------|------|----------------|---------------|--------|---|----|
| Aluminum | 6010B | 50 | 50 | 1 | 12/9/04 | 12/12/04 | 50 | U | |
| Antimony | 200.8 | 1.000 | 0.120 | 1 | 12/9/04 | 12/13/04 | 1.640 | | |
| Arsenic | 200.8 | 0.50 | 0.02 | 1 | 12/29/04 | 1/3/05 | 4.91 | | |
| Barium | 200.8 | 1.000 | 0.600 | 1 | 12/9/04 | 12/13/04 | 417 | | |
| Beryllium | 200.8 | 0.020 | 0.001 | 1 | 12/29/04 | 1/3/05 | 0.009 | B | |
| Cadmium | 200.8 | 0.020 | 0.003 | 1 | 12/29/04 | 1/3/05 | 0.006 | B | |
| Chromium | 200.8 | 0.20 | 0.04 | 1 | 12/29/04 | 1/3/05 | 0.63 | | N |
| Cobalt | 200.8 | 0.020 | 0.002 | 1 | 12/29/04 | 1/3/05 | 5.930 | | *N |
| Copper | 200.8 | 0.10 | 0.01 | 1 | 12/29/04 | 1/3/05 | 0.17 | | |
| Lead | 200.8 | 0.020 | 0.009 | 1 | 12/29/04 | 1/3/05 | 0.009 | U | |
| Nickel | 200.8 | 0.20 | 0.02 | 1 | 12/29/04 | 1/3/05 | 11.7 | | |
| Selenium | 7742 | 1.0 | 0.3 | 2 | 12/9/04 | 1/6/05 | 0.3 | U | |
| Silver | 200.8 | 0.020 | 0.005 | 1 | 12/29/04 | 1/3/05 | 0.005 | U | |
| Thallium | 200.8 | 0.020 | 0.001 | 1 | 12/29/04 | 1/3/05 | 0.001 | U | |
| Vanadium | 6010B | 10.0 | 6.0 | 1 | 12/9/04 | 12/12/04 | 6.0 | U | |
| Zinc | 200.8 | 0.50 | 0.02 | 1 | 12/29/04 | 1/3/05 | 0.42 | B | |

% Solids: 0.0

Comments:

DISSOLVED METALS

-1-

INORGANIC ANALYSIS DATA SHEET

Client: EMAX Laboratories, Inc.

Service Request: K2409069

Project No.: 04K099

Date Collected: NA

Project Name: NA

Date Received: NA

Matrix: WATER

Units: µg/L

Basis: NA

Sample Name: Method Blank

Lab Code: K2409069-MB

| Analyte | Analysis Method | MRL | MDL | Dil. | Date Extracted | Date Analyzed | Result | C | Q |
|-----------|-----------------|-------|-------|------|----------------|---------------|--------|---|----|
| Aluminum | 6010B | 50 | 50 | 1 | 12/9/04 | 12/12/04 | 50 | U | |
| Antimony | 200.8 | 1.000 | 0.120 | 1 | 12/9/04 | 12/13/04 | 0.316 | B | |
| Arsenic | 200.8 | 0.50 | 0.02 | 1 | 12/29/04 | 1/3/05 | 0.02 | U | |
| Barium | 200.8 | 1.000 | 0.600 | 1 | 12/9/04 | 12/13/04 | 0.600 | U | |
| Beryllium | 200.8 | 0.020 | 0.001 | 1 | 12/29/04 | 1/3/05 | 0.001 | U | |
| Cadmium | 200.8 | 0.020 | 0.003 | 1 | 12/29/04 | 1/3/05 | 0.003 | U | |
| Chromium | 200.8 | 0.20 | 0.04 | 1 | 12/29/04 | 1/3/05 | 0.04 | U | N |
| Cobalt | 200.8 | 0.020 | 0.002 | 1 | 12/29/04 | 1/3/05 | 0.002 | U | *N |
| Copper | 200.8 | 0.10 | 0.01 | 1 | 12/29/04 | 1/3/05 | 0.01 | U | |
| Lead | 200.8 | 0.020 | 0.009 | 1 | 12/29/04 | 1/3/05 | 0.009 | U | |
| Nickel | 200.8 | 0.20 | 0.02 | 1 | 12/29/04 | 1/3/05 | 0.02 | U | |
| Selenium | 7742 | 1.0 | 0.3 | 2 | 12/9/04 | 1/6/05 | 0.3 | U | |
| Silver | 200.8 | 0.020 | 0.005 | 1 | 12/29/04 | 1/3/05 | 0.005 | U | |
| Thallium | 200.8 | 0.020 | 0.001 | 1 | 12/29/04 | 1/3/05 | 0.001 | U | |
| Vanadium | 6010B | 10.0 | 6.0 | 1 | 12/9/04 | 12/12/04 | 6.0 | U | |
| Zinc | 200.8 | 0.50 | 0.02 | 1 | 12/29/04 | 1/3/05 | 0.02 | U | |

% Solids: 0.0

Comments:

**Laboratory Data Consultants, Inc.
Data Validation Report**

Project/Site Name: Moffett Air Field, Site 1, CTO 86
Collection Date: November 9 through November 10, 2004
LDC Report Date: January 11, 2005
Matrix: Water
Parameters: Metals
Validation Level: EPA Level III & IV
Laboratory: EMAX Laboratories, Inc. & Columbia Analytical Services, Inc.

Sample Delivery Group (SDG): 04K099/K2409069

Sample Identification

86-S1-063
86-S1-064**
86-S1-065
86-S1-066**
86-S1-067
86-S1-068
86-S1-068MS
86-S1-068DUP

****Indicates sample underwent EPA Level IV review**

Introduction

This data review covers 8 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Methods 6010B and 7000 and EPA Method 200.8 for Metals. The metals analyzed were Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, Copper, Lead, Nickel, Selenium, Silver, Thallium, Vanadium, and Zinc.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (February 1994) as there are no current guidelines for the methods stated above.

A table summarizing all data qualification flags is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from specified protocols or is of technical advisory nature.

Blanks are summarized in Section III.

Field duplicates are summarized in Section XIII.

Samples indicated by a double asterisk on the front cover underwent a EPA Level IV review. A EPA Level III review was performed on all of the other samples. Raw data were not evaluated for the samples reviewed by Level III criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UU Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

An initial calibration was performed.

The frequency and analysis criteria of the initial calibration verification (ICV) and continuing calibration verification (CCV) were met.

III. Blanks

Method blanks were reviewed for each matrix as applicable.

Data qualification by the initial, continuing and preparation blanks (ICB/CCB/PBs) was based on the maximum contaminant concentration in the ICB/CCB/PBs in the analysis of each analyte. No contaminant concentrations were found in the initial, continuing and preparation blanks with the following exceptions:

| Method Blank ID | Analyte | Maximum Concentration | Associated Samples |
|-----------------|--------------------------------------------|--------------------------------------------------|------------------------------------|
| PB (prep blank) | Antimony | 0.316 ug/L | All samples in SDG 04K099/K2409069 |
| ICB/CCB | Antimony Nickel Selenium Vanadium | 0.038 ug/L 0.31 ug/L 0.16 ug/L 7.2 ug/L | All samples in SDG 04K099/K2409069 |

Sample concentrations were compared to the maximum contaminant concentrations detected in the ICB/CCB/PBs. The sample concentrations were either not detected or were significantly greater (>5X blank contaminants) than the concentrations found in the associated method blanks with the following exceptions:

| Sample | Analyte | Reported Concentration | Modified Final Concentration |
|-------------|----------|------------------------|------------------------------|
| 86-S1-063 | Antimony | 2.200 ug/L | 2.200U ug/L |
| 86-S1-064** | Antimony | 2.810 ug/L | 2.810U ug/L |
| 86-S1-065 | Antimony | 3.400 ug/L | 3.400U ug/L |

| Sample | Analyte | Reported Concentration | Modified Final Concentration |
|-------------|----------|------------------------|------------------------------|
| 86-S1-066** | Antimony | 3.650 ug/L | 3.650U ug/L |
| 86-S1-067 | Antimony | 2.720 ug/L | 2.720U ug/L |
| 86-S1-068 | Antimony | 1.640 ug/L | 1.640U ug/L |

IV. ICP Interference Check Sample (ICS) Analysis

The frequency of analysis was met.

The criteria for analysis were met.

V. Matrix Spike Analysis

Matrix spike (MS) analyses were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits with the following exceptions:

| Spike ID (Associated Samples) | Analyte | %R (Limits) | Flag | A or P |
|-----------------------------------------------------|----------------------------------------------------|-------------------------------------------------------------------------|-----------------------------------------|--------|
| 86-S1-068MS (All samples in SDG 04K099/K2409069) | Arsenic Beryllium Chromium Copper Zinc | 43 (75-125) 59 (75-125) 45 (75-125) 72 (75-125) 49 (75-125) | J (all detects) UJ (all non-detects) | A |
| 86-S1-068MS (All samples in SDG 04K099/K2409069) | Cobalt | 150 (75-125) | J (all detects) | A |

VI. Duplicate Sample Analysis

Duplicate (DUP) sample analyses were reviewed for each matrix as applicable. Results were within QC limits with the following exceptions:

| DUP ID (Associated Samples) | Analyte | RPD (Limits) | Difference (Limits) | Flag | A or P |
|------------------------------------------------------|---------|------------------|---------------------|-----------------------------------------|--------|
| 86-S1-068DUP (All samples in SDG 04K099/K2409069) | Cobalt | 79 (≤ 30) | - | J (all detects) UJ (all non-detects) | A |

VII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

VIII. Internal Standards

All internal standard percent recoveries (%R) were within QC limits for samples on which a EPA Level IV review was performed with the following exceptions:

| Sample | Internal Standard | %R (Limits) | Analyte | Flag | A or P |
|------------------------------------|---------------------------------------------------------------------|----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| 86-S1-064** (digested 12/13/04) | Indium-115 | 153.6 (60-125) | Antimony Barium | J (all detects) J (all detects) | A |
| 86-S1-064** (digested 1/3/05) | Nickel-61 Indium-115 | 363.9 (60-125) 133.5 (60-125) | Nickel Arsenic Barium Cadmium Chromium Cobalt Silver Zinc | J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) | A |
| 86-S1-066** (digested 12/13/04) | Indium-115 | 151.5 (60-125) | Antimony Barium | J (all detects) J (all detects) | A |
| 86-S1-066** (digested 1/3/05) | Lithium-6 Scandium-45 Nickel-61 Indium-115 Lutetium-175 | 138.3 (60-125) 130.9 (60-125) 234.5 (60-125) 141.5 (60-125) 128.1 (60-125) | Arsenic Beryllium Cadmium Chromium Cobalt Copper Lead Nickel Silver Thallium Zinc | J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) | A |

Raw data were not evaluated for the samples reviewed by Level III criteria.

IX. Furnace Atomic Absorption QC

All graphite furnace atomic absorption QC were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for samples reviewed by Level III criteria.

X. ICP Serial Dilution

Although ICP serial dilution analysis was not required by the method, it was performed by the laboratory. The analysis criteria were met.

XI. Sample Result Verification

All sample result verifications met validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for samples reviewed by Level III criteria.

XII. Overall Assessment of Data

Data flags have been summarized at the end of this report.

XIII. Field Duplicates

Samples 86-S1-063 and 86-S1-064** and samples 86-S1-065 and 86-S1-066** were identified as field duplicates. No metals were detected in any of the samples with the following exceptions:

| Compound | Concentration (ug/L) | | RPD |
|-----------|----------------------|-------------|----------------|
| | 86-S1-063 | 86-S1-064** | |
| Antimony | 2.200 | 2.810 | 24 |
| Arsenic | 1.74 | 1.79 | 3 |
| Barium | 481 | 477 | 1 |
| Beryllium | 0.005 | 0.004 | 22 |
| Chromium | 0.64 | 0.62 | 3 |
| Cobalt | 0.727 | 1.150 | 45 |
| Copper | 0.11 | 0.15 | 31 |
| Lead | 0.009 | 0.009U | Not calculable |
| Nickel | 4.04 | 4.08 | 1 |
| Thallium | 0.007 | 0.001 | 150 |
| Zinc | 0.79 | 0.50 | 45 |

| Compound | Concentration (ug/L) | | RPD |
|-----------|----------------------|-------------|----------------|
| | 86-S1-065 | 86-S1-066** | |
| Antimony | 3.400 | 3.650 | 7 |
| Arsenic | 3.81 | 3.88 | 2 |
| Barium | 149 | 141 | 6* |
| Beryllium | 0.004 | 0.008 | 67 |
| Chromium | 0.73 | 0.63 | 15 |
| Cobalt | 0.775 | 1.280 | 49 |
| Copper | 0.14 | 0.16 | 13 |
| Lead | 0.143 | 0.009U | Not calculable |
| Nickel | 4.24 | 4.10 | 3 |
| Zinc | 4.92 | 3.20 | 42 |

XIV. Field Blanks

No field blanks were identified in this SDG.

Moffett Air Field, Site 1, CTO 86
Metals - Data Qualification Summary - SDG 04K099/K2409069

| SDG | Sample | Analyte | Flag | A or P | Reason |
|---------------------|--------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|---------------------------------|
| 04K099/ K2409069 | 86-S1-063 86-S1-064** 86-S1-065 86-S1-066** 86-S1-067 86-S1-068 | Arsenic Beryllium Chromium Copper Zinc | J (all detects) UJ (all non-detects) | A | Matrix spike analysis (%R) |
| 04K099/ K2409069 | 86-S1-063 86-S1-064** 86-S1-065 86-S1-066** 86-S1-067 86-S1-068 | Cobalt | J (all detects) | A | Matrix spike analysis (%R) |
| 04K099/ K2409069 | 86-S1-063 86-S1-064** 86-S1-065 86-S1-066** 86-S1-067 86-S1-068 | Cobalt | J (all detects) UJ (all non-detects) | A | Duplicate sample analysis (RPD) |
| 04K099/ K2409069 | 86-S1-064** | Antimony Barium Nickel Arsenic Cadmium Chromium Cobalt Silver Zinc | J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) | A | Internal standards (%R) |
| 04K099/ K2409069 | 86-S1-066** | Antimony Barium Arsenic Beryllium Cadmium Chromium Cobalt Copper Lead Nickel Silver Thallium Zinc | J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) J (all detects) | A | Internal standards (%R) |

Moffett Air Field, Site 1, CTO 86**Metals - Laboratory Blank Data Qualification Summary - SDG 04K099/K2409069**

| SDG | Sample | Analyte | Modified Final Concentration | A or P |
|---------------------|-------------|----------|------------------------------|--------|
| 04K099/ K2409069 | 86-S1-063 | Antimony | 2.200U ug/L | A |
| 04K099/ K2409069 | 86-S1-064** | Antimony | 2.810U ug/L | A |
| 04K099/ K2409069 | 86-S1-065 | Antimony | 3.400U ug/L | A |
| 04K099/ K2409069 | 86-S1-066** | Antimony | 3.650U ug/L | A |
| 04K099/ K2409069 | 86-S1-067 | Antimony | 2.720U ug/L | A |
| 04K099/ K2409069 | 86-S1-068 | Antimony | 1.640U ug/L | A |

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Moffett Airfield, MFA, Site 1, CTO 85

Collection Date: November 9 through November 10, 2004

LDC Report Date: January 11, 2005

Matrix: Water

Parameters: Volatiles

Validation Level: EPA Level III & IV

Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 04K099

Sample Identification

86-S1-070

86-S1-063

86-S1-064**

86-S1-065

86-S1-066**

86-S1-067

86-S1-068

86-S1-068MS

86-S1-068MSD

**Indicates sample underwent EPA Level IV review

Introduction

This data review covers 9 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8260B for Volatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XVI.

Samples indicated by a double asterisk on the front cover underwent a EPA Level IV review. A EPA Level III review was performed on all of the other samples. Raw data were not evaluated for the samples reviewed by Level III criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

The mean percent relative standard deviation (%RSD) for all compounds was less than or equal to 15.0% and less than or equal to 30.0% for selected individual compounds.

A curve fit, based on the initial calibration, was established for quantitation. The coefficient of determination (r^2) was greater than or equal to 0.990.

Average relative response factors (RRF) for all system performance check compounds (SPCCs) were within method criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

For the purposes of technical evaluation, all compounds were evaluated against the 25.0% (%D) National Functional Guideline criteria. Unless noted above, all compounds were within the validation criteria.

Initial calibration verification (ICV) percent differences (%D) were less than or equal to 20.0% for all compounds with the following exceptions:

| Date | Compound | %D | Associated Samples | Flag | A or P |
|----------|---------------------|------|---------------------------|-----------------------------------------------------------------|--------|
| 10/15/04 | Carbon disulfide | 24.2 | All samples in SDG 04K099 | J (all detects) | A |
| | Hexachlorobutadiene | 21.4 | | UJ (all non-detects) J (all detects) UJ (all non-detects) | |

All of the continuing calibration RRF values for all system performance check compounds (SPCCs) were within method criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No volatile contaminants were found in the method blanks with the following exceptions:

| Method Blank ID | Analysis Date | Compound TIC (RT in minutes) | Concentration | Associated Samples |
|-----------------|---------------|---------------------------------|---------------|---------------------------|
| MBLK1W | 11/20/04 | Acetone | 3.3 ug/L | All samples in SDG 04K099 |

Sample concentrations were compared to concentrations detected in the method blanks. The sample concentrations were either not detected or were significantly greater (>10X for common contaminants, >5X for other contaminants) than the concentrations found in the associated method blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XII. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XV. Overall Assessment

Data flags have been summarized at the end of the report.

XVI. Field Duplicates

Samples 86-S1-063 and 86-S1-064** and samples 86-S1-065 and 86-S1-066** were identified as field duplicates. No volatiles were detected in any of the samples with the following exceptions:

| Compound | Concentration (ug/L) | | RPD |
|------------------|----------------------|-------------|----------------|
| | 86-S1-063 | 86-S1-064** | |
| Carbon disulfide | 0.5U | 0.23 | Not calculable |

| Compound | Concentration (ug/L) | | RPD |
|------------------|----------------------|-------------|----------------|
| | 86-S1-065 | 86-S1-066** | |
| Carbon disulfide | 0.5U | 0.23 | Not calculable |

XVII. Field Blanks

Sample 86-S1-070 was identified as a trip blank. No volatile contaminants were found in this blank.

Moffett Airfield, MFA, Site 1, CTO 85
Volatiles - Data Qualification Summary - SDG 04K099

| SDG | Sample | Compound | Flag | A or P | Reason |
|--------|-------------|---------------------|----------------------|--------|------------------------------------|
| 04K099 | 86-S1-070 | Carbon disulfide | J (all detects) | A | Continuing calibration (ICV %D) |
| | 86-S1-063 | | UJ (all non-detects) | | |
| | 86-S1-064** | Hexachlorobutadiene | J (all detects) | | |
| | 86-S1-065 | | UJ (all non-detects) | | |
| | 86-S1-066** | | | | |
| | 86-S1-067 | | | | |
| | 86-S1-068 | | | | |

Moffett Airfield, MFA, Site 1, CTO 85
Volatiles - Laboratory Blank Data Qualification Summary - SDG 04K099

No Sample Data Qualified in this SDG

**Laboratory Data Consultants, Inc.
Data Validation Report**

Project/Site Name: Moffett Airfield, MFA, Site 1, CTO 85
Collection Date: November 9 through November 10, 2004
LDC Report Date: January 11, 2005
Matrix: Water
Parameters: Semivolatiles
Validation Level: EPA Level III & IV
Laboratory: EMAX Laboratories, Inc.
Sample Delivery Group (SDG): 04K099

Sample Identification

86-S1-063
86-S1-064**
86-S1-065
86-S1-066**
86-S1-067
86-S1-068
86-S1-068MS
86-S1-068MSD

**Indicates sample underwent EPA Level IV review

Introduction

This data review covers 8 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8270C for Semivolatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XVI.

Samples indicated by a double asterisk on the front cover underwent a EPA Level IV review. A EPA Level III review was performed on all of the other samples. Raw data were not evaluated for the samples reviewed by Level III criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

The mean percent relative standard deviation (%RSD) for all compounds was less than or equal to 15.0% and less than or equal to 30.0% for selected individual compounds.

A curve fit, based on the initial calibration, was established for quantitation. The coefficient of determination (r^2) was greater than or equal to 0.990.

Average relative response factors (RRF) for all system performance check compounds (SPCCs) were within method criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

For the purposes of technical evaluation, all compounds were evaluated against the 25.0% (%D) National Functional Guideline criteria. Unless noted above, all compounds were within the validation criteria.

Initial calibration verification (ICV) percent differences (%D) were less than or equal to 20.0% for all compounds with the following exceptions:

| Date | Compound | %D | Associated Samples | Flag | A or P |
|---------|---------------------------|------|---------------------------|-----------------------------------------|--------|
| 12/2/04 | Hexachlorocyclopentadiene | 23.8 | All samples in SDG 04K099 | J (all detects) UJ (all non-detects) | A |

All of the continuing calibration RRF values for all system performance check compounds (SPCCs) were within method criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No semivolatile contaminants were found in the method blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XII. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XV. Overall Assessment

Data flags have been summarized at the end of the report.

XVI. Field Duplicates

Samples 86-S1-063 and 86-S1-064** and samples 86-S1-065 and 86-S1-066** were identified as field duplicates. No semivolatiles were detected in any of the samples.

XVII. Field Blanks

No field blanks were identified in this SDG.

Moffett Airfield, MFA, Site 1, CTO 85
Semivolatiles - Data Qualification Summary - SDG 04K099

| SDG | Sample | Compound | Flag | A or P | Reason |
|--------|--------------------------------------------------------------------------------|---------------------------|-----------------------------------------|--------|------------------------------------|
| 04K099 | 86-S1-063 86-S1-064** 86-S1-065 86-S1-066** 86-S1-067 86-S1-068 | Hexachlorocyclopentadiene | J (all detects) UJ (all non-detects) | A | Continuing calibration (ICV %D) |

Moffett Airfield, MFA, Site 1, CTO 85
Semivolatiles - Laboratory Blank Data Qualification Summary - SDG 04K099

No Sample Data Qualified in this SDG

**Laboratory Data Consultants, Inc.
Data Validation Report**

Project/Site Name: Moffett Airfield, MFA, Site 1, CTO 86

Collection Date: November 9 through November 10, 2004

LDC Report Date: January 11, 2005

Matrix: Water

Parameters: Chlorinated Pesticides

Validation Level: EPA Level III & IV

Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 04K099

Sample Identification

86-S1-063

86-S1-064**

86-S1-065

86-S1-066**

86-S1-067

86-S1-068

86-S1-068MS

86-S1-068MSD

**Indicates sample underwent EPA Level IV review.

Introduction

This data review covers 8 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8081A for Chlorinated Pesticides.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification flags is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XIV.

Samples indicated by a double asterisk on the front cover underwent a EPA Level IV review. A EPA Level III review was performed on all other samples. Raw data were not evaluated for the samples reviewed by Level III criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UU Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/ECD Instrument Performance Check

Instrument performance was acceptable unless noted otherwise under initial calibration and continuing calibration sections.

III. Initial Calibration

Initial calibration of single and multicomponent compounds was performed for the primary (quantitation) column and confirmation column as required by this method.

The percent relative standard deviations (%RSD) were less than or equal to 20.0% for all compounds.

Retention time windows were evaluated and considered technically acceptable for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples on which a Level III review was performed.

IV. Continuing Calibration

Continuing calibration was performed at required frequencies.

The percent differences (%D) of calibration factors in continuing standard mixtures were within the 15.0% QC limits.

Initial calibration verification (ICV) percent differences (%D) were less than or equal to 20.0% for all compounds.

Retention time windows were evaluated and considered technically acceptable for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples on which a Level III review was performed.

The individual 4,4'-DDT and Endrin breakdowns were less than 15.0% .

V. Blanks

Method blanks were reviewed for each matrix as applicable. No chlorinated pesticide contaminants were found in the method blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

| Spike ID (Associated Samples) | Compound | MS (%R) (Limits) | MSD (%R) (Limits) | RPD (Limits) | Flag | A or P |
|-------------------------------------|----------|---------------------|----------------------|-----------------|-----------------|--------|
| 86-S1-068MS/MSD (86-S1-068) | Aldrin | 148 (47-125) | - | - | J (all detects) | A |

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Pesticide Cleanup Checks

a. Florisil Cartridge Check

Florisil cleanup was not required and therefore not performed in this SDG.

b. GPC Calibration

GPC cleanup was not required and therefore not performed in this SDG.

XI. Target Compound Identification

All target compound identifications were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XII. Compound Quantitation and Reported CRQLs

All compound quantitation and CRQLs were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XIII. Overall Assessment of Data

Data flags are summarized at the end of this report.

XIV. Field Duplicates

Samples 86-S1-063 and 86-S1-064** and samples 86-S1-065 and 86-S1-066** were identified as field duplicates. No polychlorinated biphenyls were detected in any of the samples.

XV. Field Blanks

No field blanks were identified in this SDG.

Moffett Airfield, MFA, Site 1, CTO 86
Chlorinated Pesticides - Data Qualification Summary - SDG 04K099

| SDG | Sample | Compound | Flag | A or P | Reason |
|--------|-----------|----------|-----------------|--------|-------------------------------------------|
| 04K099 | 86-S1-068 | Aldrin | J (all detects) | A | Matrix spike/Matrix spike duplicates (%R) |

Moffett Airfield, MFA, Site 1, CTO 86
Chlorinated Pesticides - Laboratory Blank Data Qualification Summary - SDG 04K099

No Sample Data Qualified in this SDG

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Moffett Airfield, MFA, Site 1, CTO 86
Collection Date: November 9 through November 10, 2004
LDC Report Date: January 11, 2005
Matrix: Water
Parameters: Polychlorinated Biphenyls
Validation Level: EPA Level III & IV
Laboratory: EMAX Laboratories, Inc.
Sample Delivery Group (SDG): 04K099

Sample Identification

86-S1-063
86-S1-064**
86-S1-065
86-S1-066**
86-S1-067
86-S1-068
86-S1-068MS
86-S1-068MSD

**Indicates sample underwent EPA Level IV review.

Introduction

This data review covers 8 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8082 for Polychlorinated Biphenyls.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification flags is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XIV.

Samples indicated by a double asterisk on the front cover underwent a EPA Level IV review. A EPA Level III review was performed on all other samples. Raw data were not evaluated for the samples reviewed by Level III criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UU Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/ECD Instrument Performance Check

Instrument performance data were not provided and therefore not reviewed.

III. Initial Calibration

Initial calibration of multicomponent compounds was performed for the primary (quantitation) column as required by the method.

The percent relative standard deviations (%RSD) were less than or equal to 20.0% for all compounds.

Retention time windows were evaluated and considered technically acceptable for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples on which a Level III review was performed.

IV. Continuing Calibration

Continuing calibration was performed at required frequencies.

The percent differences (%D) of calibration factors in continuing standard mixtures were within the 15.0% QC limits.

Initial calibration verification (ICV) percent differences (%D) were less than or equal to 20.0% for all compounds.

Retention time windows were evaluated and considered technically acceptable for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples on which a Level III review was performed.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No polychlorinated biphenyl contaminants were found in the method blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Pesticide Cleanup Checks

a. Florisil Cartridge Check

Florisil cleanup was not required and therefore not performed in this SDG.

b. GPC Calibration

GPC cleanup was not required and therefore not performed in this SDG.

XI. Target Compound Identification

All target compound identifications were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XII. Compound Quantitation and Reported CRQLs

All compound quantitation and CRQLs were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XIII. Overall Assessment of Data

Data flags are summarized at the end of this report.

XIV. Field Duplicates

Samples 86-S1-063 and 86-S1-064** and samples 86-S1-065 and 86-S1-066** were identified as field duplicates. No polychlorinated biphenyls were detected in any of the samples.

XV. Field Blanks

No field blanks were identified in this SDG.

Moffett Airfield, MFA, Site 1, CTO 86

Polychlorinated Biphenyls - Data Qualification Summary - SDG 04K099

No Sample Data Qualified in this SDG

Moffett Airfield, MFA, Site 1, CTO 86

Polychlorinated Biphenyls - Laboratory Blank Data Qualification Summary - SDG 04K099

No Sample Data Qualified in this SDG

Laboratory Data Consultants, Inc.
Data Validation Report

ORIGINAL

Project/Site Name: Moffett Airfield, Site 1, CTO 86
Collection Date: November 9 through November 10, 2004
LDC Report Date: January 11, 2005
Matrix: Water
Parameters: Mercury
Validation Level: EPA Level III & IV
Laboratory: EMAX Laboratories, Inc.
Sample Delivery Group (SDG): 04K099

Sample Identification

86-S1-063
86-S1-064**
86-S1-065
86-S1-066**
86-S1-067
86-S1-068
86-S1-068MS
86-S1-068MSD

**Indicates sample underwent EPA Level IV review

Introduction

This data review covers 8 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 7470A for Mercury.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (February 1994) as there are no current guidelines for the method stated above.

A table summarizing all data qualification flags is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from specified protocols or is of technical advisory nature.

Blanks are summarized in Section III.

Field duplicates are summarized in Section XIII.

Samples indicated by a double asterisk on the front cover underwent a EPA Level IV review. A EPA Level III review was performed on all of the other samples. Raw data were not evaluated for the samples reviewed by Level III criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UU Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

An initial calibration was performed.

The frequency and analysis criteria of the initial calibration verification (ICV) and continuing calibration verification (CCV) were met.

III. Blanks

Method blanks were reviewed for each matrix as applicable.

Data qualification by the initial, continuing and preparation blanks (ICB/CCB/PBs) was based on the maximum contaminant concentration in the ICB/CCB/PBs in the analysis of each analyte. No contaminant concentrations were found in the initial, continuing and preparation blanks.

IV. ICP Interference Check Sample (ICS) Analysis

ICP interference check sample was not required by the method.

V. Matrix Spike Analysis

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

| Spike ID (Associated Samples) | Analyte | MS (%R) (Limits) | MSD (%R) (Limits) | RPD (Limits) | Flag | A or P |
|---------------------------------------------------|---------|---------------------|----------------------|-----------------|-----------------------------------------|--------|
| 86-S1-068MS/MSD (All samples in SDG 04K099) | Mercury | 67 (75-125) | 72 (75-125) | - | J (all detects) UJ (all non-detects) | A |

VI. Duplicate Sample Analysis

The laboratory has indicated that there were no duplicate (DUP) analyses specified for the samples in this SDG, and therefore duplicate analyses were not performed for this SDG.

VII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Internal Standards

ICP-MS was not utilized in this SDG.

IX. Furnace Atomic Absorption QC

Graphite furnace atomic absorption was not utilized in this SDG.

X. ICP Serial Dilution

ICP serial dilution was not required by the method.

XI. Sample Result Verification

All sample result verifications met validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XII. Overall Assessment of Data

Data flags have been summarized at the end of this report.

XIII. Field Duplicates

Samples 86-S1-063 and 86-S1-064** and samples 86-S1-065 and 86-S1-066** were identified as field duplicates. No mercury was detected in any of the samples.

XIV. Field Blanks

No field blanks were identified in this SDG.

Moffett Airfield, Site 1, CTO 86
Mercury - Data Qualification Summary - SDG 04K099

| SDG | Sample | Analyte | Flag | A or P | Reason |
|--------|--------------------------------------------------------------------------------|---------|-----------------------------------------|--------|----------------------------------------------|
| 04K099 | 86-S1-063 86-S1-064** 86-S1-065 86-S1-066** 86-S1-067 86-S1-068 | Mercury | J (all detects) UJ (all non-detects) | A | Matrix spike/Matrix spike duplicates (%R) |

Moffett Airfield, Site 1, CTO 86
Mercury - Laboratory Blank Data Qualification Summary - SDG 04K099

No Sample Data Qualified in this SDG

SUPPLEMENTAL SAMPLING

JULY 2004

| | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------------------------|--|-----------------------------------------|--|-----------------------------------------------|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------|--|--------------|--|---------------|--|-----------------------------------|--|------------------------------------------------------------------|--|--------------------|--|-----|----------------------------------------|--|--|
| PROJECT NAME SITE 1 BASELINE | | PURCHASE ORDER NO. 20848 TASK 28 | | ANALYSES REQUIRED | | | | | | | | | | LABORATORY NAME EMAX | | Project Information Section Do not submit to Laboratory | | | | | | | |
| PROJECT LOCATION MOFFETT F.A. | | PROJECT NO. 1990.086E | | | | | | | | | | | | LABORATORY ID (FOR LABORATORY) | | | | | | | | | |
| SAMPLER NAME BILL OGLE | | SAMPLER SIGNATURE <i>[Signature]</i> | | | | | | | | | | | | | | | | | | | | | |
| PROJECT CONTACT LISA BIEKOWSKI | | AIRBILL NUMBER 847882738737 | | | | | | | | | | | | COMMENTS 046024 | | LOCATION | | DEPTH START END | | QC | | | |
| SAMPLE ID | | DATE COLLECTED | | TIME COLLECTED | | NO. OF CONTAINER | | LEVEL 3 4 | | TYPE E | | T A T | | | | | | | | | | | |
| 86-SI-029 | | 7/6/04 | | 1040 | | 3 | | X | | W | | 10 | | X | | | | | | REG | | | |
| 86-SI-028 | | 7/6/04 | | 1100 | | 3 | | X | | W | | 10 | | X | | | | | | REG | | | |
| 86-SI-027 | | 7/6/04 | | 1145 | | 3 | | X | | W | | 10 | | X | | | | | | REG | | | |
| 86-SI-026 | | 7/6/04 | | 1230 | | 3 | | X | | W | | 10 | | X | | | | | | REG | | | |
| 86-SI-025 | | 7/6/04 | | 1415 | | 3 | | X | | W | | 10 | | X | | | | | | REG | | | |
| 86-SI-024 | | 7/6/04 | | 1500 | | 3 | | X | | W | | 10 | | X | | | | | | REG | | | |
| 86-SI-023 | | 7/6/04 | | 1600 | | 3 | | X | | W | | 10 | | X | | | | | | REG | | | |
| 86-SI-022 | | 7/6/04 | | 1600 | | 9 | | X | | W | | 10 | | X | | | | | | REG | | | |
| 86-SI-021 | | 7/6/04 | | 1515 | | 3 | | X | | W | | 10 | | X | | | | | | REG | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| RELINQUISHED BY (Signature) <i>[Signature]</i> | | DATE 7/7/04 | | RECEIVED BY (Signature) <i>[Signature]</i> | | LABORATORY INSTRUCTIONS/COMMENTS Dissolved Mercury Samples are Field Filtered | | | | | | | | | | | | | | | SAMPLING COMMENT: R2/04 Baseline | | |
| COMPANY FFW | | TIME 1300 | | COMPANY Fedex | | COMPOSITE DESCRIPTION N/A | | | | | | | | | | | | | | | | | |
| RELINQUISHED BY (Signature) | | DATE | | RECEIVED BY (Signature) | | | | | | | | | | | | | | | | | | | |
| COMPANY | | TIME | | COMPANY | | | | | | | | | | | | | | | | | | | |
| RELINQUISHED BY (Signature) | | DATE | | RECEIVED BY (Signature) | | SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY) TEMPERATURE: _____ SAMPLE CONDITION: <input type="checkbox"/> INTACT <input type="checkbox"/> BROKEN COOLER SEAL: <input type="checkbox"/> INTACT <input type="checkbox"/> BROKEN | | | | | | | | | | | | | | | | | |
| COMPANY | | TIME | | COMPANY | | | | | | | | | | | | | | | | | | | |

CHAIN-OF-CUSTODY RECORD

| PROJECT NAME SITE 1 BASELINE | | PURCHASE ORDER NO. 20848 TASK 28 | | ANALYSES REQUIRED <div style="display: flex; justify-content: space-around; font-size: small;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">CPA 8270C (EXTENDED USE)</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">CPA 7470A (EXTENDED USE)</div> </div> | | | | | | | | | | LABORATORY NAME EMAX | | Project Information Section Do not submit to Laboratory | | | | | | | | | |
|---------------------------------------------------------------------------------------------------------|----------------|--------------------------------------------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|---|---|--|--|--|--|--------------------------------------------------------|--|--------------------------------------------------------------------------|--|--|----------|----------|-------|-----|-------------------------------------------------------------|--|--|
| PROJECT LOCATION MOFFETT F.A. | | PROJECT NO. 1990.086E | | | | | | | | | | | | LABORATORY ID (FOR LABORATORY) 04G024 | | | | | | | | | | | |
| SAMPLER NAME BIL OGLE | | SAMPLER SIGNATURE <i>[Signature]</i> | | | | | | | | | | | | | | | | | | | | | | | |
| PROJECT CONTACT LISA BIEWKOWSKI | | AIRBILL NUMBER 84788 2738737 | | | | | | | | | | | | | | | | | | | | | | | |
| SAMPLE ID | DATE COLLECTED | TIME COLLECTED | NO. OF CONTAINER | LEVEL | | TYPE | T A T | | | | | | | | | | | | COMMENTS | LOCATION | DEPTH | | QC | | |
| | | | | 3 | 4 | | | | | | | | | | | | | | | | START | END | | | |
| 86-SI-020 | 7/7/04 | 0740 | 3 | X | | W | 10 DAY | X | X | | | | | | | | | | | W1-19 | - | - | REG | | |
| 86-SI-019 | 7/7/04 | 1040 | 3 | | X | W | 10 DAY | X | X | | | | | | | | | | | W1-15 | - | - | FD | | |
| 86-SI-018 | 7/7/04 | 1040 | 3 | X | | W | 10 DAY | X | X | | | | | | | | | | | W1-15 | - | - | REG | | |
| 86-SI-017 | 7/7/04 | 1140 | 3 | X | | W | 10 DAY | X | X | | | | | | | | | | | W1-1 | - | - | REG | | |
| <div style="font-size: 2em; transform: rotate(-15deg); opacity: 0.5;"> <i>[Signature]</i> 7/7/04 </div> | | | | | | | | | | | | | | | | | | | | | | | | | |
| RELINQUISHED BY (Signature) <i>[Signature]</i> | | DATE 7/7/04 | | RECEIVED BY (Signature) <i>[Signature]</i> | | LABORATORY INSTRUCTIONS/COMMENTS DISOLVED MERCURY SAMPLES ARE FIELD FILTERED | | | | | | | | | | | | | | | | | SAMPLING COMMENT: R2 / 04 Base line | | |
| COMPANY FWI | | TIME 1300 | | COMPANY FEDER | | | | | | | | | | | | | | | | | | | | | |
| RELINQUISHED BY (Signature) | | DATE | | RECEIVED BY (Signature) | | COMPOSITE DESCRIPTION N/A | | | | | | | | | | | | | | | | | | | |
| COMPANY | | TIME | | COMPANY | | | | | | | | | | | | | | | | | | | | | |
| RELINQUISHED BY (Signature) | | DATE | | RECEIVED BY (Signature) | | | | | | | | | | | | | | | | | | | | | |
| COMPANY | | TIME | | COMPANY | | SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY) TEMPERATURE: _____ SAMPLE CONDITION: <input type="checkbox"/> INTACT <input type="checkbox"/> BROKEN COOLER SEAL: <input type="checkbox"/> INTACT <input type="checkbox"/> BROKEN | | | | | | | | | | | | | | | | | | | |
| RELINQUISHED BY (Signature) | | DATE | | RECEIVED BY (Signature) | | | | | | | | | | | | | | | | | | | | | |
| COMPANY | | TIME | | COMPANY | | | | | | | | | | | | | | | | | | | | | |

EMAX
LABORATORIES, INC.
1835 W. 205th Street
Torrance, CA 90501
Tel: (310) 618-8889
Fax: (310) 618-0818

Date: 07-22-2004
EMAX Batch No.: 04G024

Attn: Lynn Jefferson

Tetra Tech FW, Inc.
1940 E Deere Ave, Suite 200
Santa Ana CA 92705

Subject: Laboratory Report
Project: MFA, Site 1, CTO 86

Enclosed is the Laboratory report for samples received on
07/08/04. The data reported include :

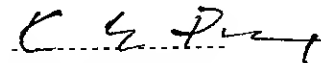
| Sample ID | Control # | Col Date | Matrix | Analysis |
|-----------|-----------|----------|--------|----------------------------------------------------|
| 86-S1-029 | G024-01 | 07/06/04 | WATER | SEMIVOLATILE ORGANICS BY GCMS MERCURY DISSOLVED |
| 86-S1-028 | G024-02 | 07/06/04 | WATER | SEMIVOLATILE ORGANICS BY GCMS MERCURY DISSOLVED |
| 86-S1-027 | G024-03 | 07/06/04 | WATER | SEMIVOLATILE ORGANICS BY GCMS MERCURY DISSOLVED |
| 86-S1-026 | G024-04 | 07/06/04 | WATER | SEMIVOLATILE ORGANICS BY GCMS MERCURY DISSOLVED |
| 86-S1-025 | G024-05 | 07/06/04 | WATER | SEMIVOLATILE ORGANICS BY GCMS MERCURY DISSOLVED |
| 86-S1-024 | G024-06 | 07/06/04 | WATER | SEMIVOLATILE ORGANICS BY GCMS MERCURY DISSOLVED |
| 86-S1-023 | G024-07 | 07/06/04 | WATER | SEMIVOLATILE ORGANICS BY GCMS MERCURY DISSOLVED |
| 86-S1-022 | G024-08 | 07/06/04 | WATER | SEMIVOLATILE ORGANICS BY GCMS MERCURY DISSOLVED |
| 86-S1-020 | G024-09 | 07/07/04 | WATER | SEMIVOLATILE ORGANICS BY GCMS MERCURY DISSOLVED |
| 86-S1-019 | G024-10 | 07/07/04 | WATER | SEMIVOLATILE ORGANICS BY GCMS |

| Sample ID | Control # | Col Date | Matrix | Analysis |
|--------------|-----------|----------|--------|-------------------------------------------------------------------------|
| 86-S1-018 | G024-11 | 07/07/04 | WATER | MERCURY DISSOLVED SEMIVOLATILE ORGANICS BY GCMS MERCURY DISSOLVED |
| 86-S1-017 | G024-12 | 07/07/04 | WATER | SEMIVOLATILE ORGANICS BY GCMS MERCURY DISSOLVED |
| 86-S1-022MS | G024-08M | 07/06/04 | WATER | SEMIVOLATILE ORGANICS BY GCMS MERCURY DISSOLVED |
| 86-S1-022MSD | G024-08S | 07/06/04 | WATER | SEMIVOLATILE ORGANICS BY GCMS MERCURY DISSOLVED |

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning these results.

Sincerely yours,



Kam Y. Pang, Ph.D.
Laboratory Director

CASE NARRATIVE

CLIENT: TETRA TECH FW, INC.
PROJECT: MFA, SITE 1, CTO 86
SDG: 04G024

SW 3520C/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Twelve (12) water samples were received on 07/08/04 for Semi Volatile Organic analysis by Method 3520C/8270C in accordance with USEPA SW846, 3rd ed.

1. Holding Time
Analytical holding time was met.
2. Tuning and Calibration
Tuning and calibration were carried out at 12-hour interval. All QC requirements were met.
3. Method Blank
Method blank was free of contamination at the reporting limit.
4. Surrogate Recovery
Recoveries were within QC limit.
5. Lab Control Sample/Lab Control Sample Duplicate
Recoveries were within QC limit.
6. Matrix Spike/Matrix Spike Duplicate
Sample G024-08 was spiked. All recoveries were within QC limit.
7. Sample Analysis
Samples were analyzed according to the prescribed QC procedures. All criteria were met.

SW 3520C/B270C
 SEMI VOLATILE ORGANICS BY GC/MS

| | |
|-------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 07/06/04 |
| Project : MFA, SITE 1, CTO 86 | Date Received: 07/08/04 |
| Batch No. : 046024 | Date Extracted: 07/12/04 15:30 |
| Sample ID: 86-S1-029 | Date Analyzed: 07/15/04 21:43 |
| Lab Samp ID: G024-01 | Dilution Factor: .94 |
| Lab File ID: RGX080 | Matrix : WATER |
| Ext Btch ID: SVG008W | % Moisture : NA |
| Calib. Ref.: RFX031 | Instrument ID : T-042 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 2,4,5-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4,6-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DIMETHYLPHENOL | ND | 9.4 | 4.7 |
| 2,4-DINITROPHENOL | ND | 19 | 9.4 |
| 2,4-DINITROTOLUENE | ND | 19 | 9.4 |
| 2,6-DINITROTOLUENE | ND | 19 | 9.4 |
| 2-CHLORONAPHTHALENE | ND | 9.4 | 4.7 |
| 2-CHLOROPHENOL | ND | 9.4 | 4.7 |
| 2-METHYLNAPHTHALENE | ND | 9.4 | 4.7 |
| 2-METHYLPHENOL | ND | 19 | 5.6 |
| 2-NITROANILINE | ND | 9.4 | 4.7 |
| 2-NITROPHENOL | ND | 9.4 | 4.7 |
| 3,3'-DICHLOROBENZIDINE | ND | 9.4 | 4.7 |
| 3-NITROANILINE | ND | 9.4 | 4.7 |
| 4,6-DINITRO-2-METHYLPHENOL | ND | 19 | 9.4 |
| 4-BROMOPHENYL-PHENYL ETHER | ND | 19 | 6.6 |
| 4-CHLORO-3-METHYLPHENOL | ND | 9.4 | 4.7 |
| 4-CHLOROANILINE | ND | 9.4 | 4.7 |
| 4-CHLOROPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-METHYLPHENOL (1) | ND | 9.4 | 4.7 |
| 4-NITROANILINE | ND | 19 | 4.7 |
| 4-NITROPHENOL | ND | 19 | 4.7 |
| ACENAPHTHENE | ND | 9.4 | 4.7 |
| ACENAPHTHYLENE | ND | 9.4 | 4.7 |
| ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)PYRENE | ND | 9.4 | 4.7 |
| BENZO(B)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(K)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(G,H,I)PERYLENE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHOXY)METHANE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-CHLOROISOPROPYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-ETHYLHEXYL)PHTHALATE | ND | 19 | 9.4 |
| BUTYLBENZYLPHTHALATE | ND | 9.4 | 4.7 |
| CHRYSENE | ND | 9.4 | 4.7 |
| DI-N-BUTYLPHTHALATE | ND | 9.4 | 4.7 |
| DI-N-OCTYLPHTHALATE | ND | 9.4 | 4.7 |
| DIBENZO(A,H)ANTHRACENE | ND | 9.4 | 4.7 |
| DIBENZOFURAN | ND | 19 | 4.7 |
| DIETHYLPHTHALATE | ND | 19 | 5.6 |
| DIMETHYLPHTHALATE | ND | 9.4 | 4.7 |
| FLUORANTHENE | ND | 9.4 | 4.7 |
| FLUORENE | ND | 19 | 5.6 |
| HEXACHLOROBENZENE | ND | 9.4 | 4.7 |
| HEXACHLOROCYCLOPENTADIENE | ND | 9.4 | 4.7 |
| HEXACHLOROETHANE | ND | 9.4 | 4.7 |
| INDENO(1,2,3-CD)PYRENE | ND | 9.4 | 4.7 |
| ISOPHORONE | ND | 9.4 | 4.7 |
| N-NITROSO-DI-N-PROPYLAMINE | ND | 9.4 | 4.7 |
| N-NITROSODIPHENYLAMINE (2) | ND | 9.4 | 4.7 |
| NITROBENZENE | ND | 9.4 | 4.7 |
| PENTACHLOROPHENOL | ND | 19 | 9.4 |
| PHENANTHRENE | ND | 19 | 5.6 |
| PHENOL | ND | 9.4 | 4.7 |
| PYRENE | ND | 9.4 | 4.7 |
| 1,1'-BIPHENYL | ND | 9.4 | 4.7 |
| ACETOPHENONE | ND | 19 | 6.4 |
| ATRAZINE | ND | 9.4 | 4.7 |
| BENZALDEHYDE | ND | 9.4 | 4.7 |
| CAPROLACTAM | ND | 9.4 | 4.7 |
| CARBAZOLE | ND | 9.4 | 4.7 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| 2,4,6-TRIBROMOPHENOL | 71 | 25-134 |
| 2-FLUOROBIPHENYL | 64 | 43-125 |
| 2-FLUOROPHENOL | 54 | 25-125 |
| NITROBENZENE-D5 | 63 | 32-125 |
| PHENOL-D5 | 60 | 25-125 |
| TERPHENYL-D14 | 86 | 42-126 |

RL: Reporting Limit
 (1): Cannot be separated from 3-Methylphenol
 (2): Cannot be separated from Diphenylamine

SW 3520C/8270C
 SEMI VOLATILE ORGANICS BY GC/MS

| | |
|-------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 07/06/04 |
| Project : MFA, SITE 1, CTO 86 | Date Received: 07/08/04 |
| Batch No. : 04G024 | Date Extracted: 07/12/04 15:30 |
| Sample ID: 86-S1-028 | Date Analyzed: 07/15/04 22:18 |
| Lab Samp ID: G024-02 | Dilution Factor: 94 |
| Lab File ID: RGX081 | Matrix: WATER |
| Ext. Btch ID: SVG008W | % Moisture: NA |
| Calib. Ref.: RFX031 | Instrument ID: T-042 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 2,4,5-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4,6-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DIMETHYLPHENOL | ND | 9.4 | 4.7 |
| 2,4-DINITROPHENOL | ND | 19 | 9.4 |
| 2,4-DINITROTOLUENE | ND | 19 | 5.6 |
| 2,6-DINITROTOLUENE | ND | 9.4 | 4.7 |
| 2-CHLORONAPHTHALENE | ND | 9.4 | 4.7 |
| 2-CHLOROPHENOL | ND | 9.4 | 4.7 |
| 2-METHYLNAPHTHALENE | ND | 9.4 | 4.7 |
| 2-METHYLPHENOL | ND | 19 | 5.6 |
| 2-NITROANILINE | ND | 9.4 | 4.7 |
| 2-NITROPHENOL | ND | 9.4 | 4.7 |
| 3,3'-DICHLOROBENZIDINE | ND | 9.4 | 4.7 |
| 3-NITROANILINE | ND | 19 | 9.4 |
| 4,6-DINITRO-2-METHYLPHENOL | ND | 19 | 6.6 |
| 4-BROMOPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-CHLORO-3-METHYLPHENOL | ND | 9.4 | 4.7 |
| 4-CHLOROANILINE | ND | 9.4 | 4.7 |
| 4-CHLOROPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-METHYLPHENOL (1) | ND | 9.4 | 4.7 |
| 4-NITROANILINE | ND | 19 | 4.7 |
| 4-NITROPHENOL | ND | 9.4 | 4.7 |
| ACENAPHTHENE | ND | 9.4 | 4.7 |
| ACENAPHTHYLENE | ND | 9.4 | 4.7 |
| ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)PYRENE | ND | 9.4 | 4.7 |
| BENZO(B)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(K)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(G,H,I)PERYLENE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHOXY)METHANE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-CHLORISOPROPYL)ETHER | ND | 19 | 9.4 |
| BIS(2-ETHYLHEXYL)PHTHALATE | ND | 9.4 | 4.7 |
| BUTYLBENZYLPHTHALATE | ND | 9.4 | 4.7 |
| CHRYSENE | ND | 9.4 | 4.7 |
| DI-N-BUTYLPHTHALATE | ND | 9.4 | 4.7 |
| DI-N-OCTYLPHTHALATE | ND | 9.4 | 4.7 |
| DIBENZO(A,H)ANTHRACENE | ND | 9.4 | 4.7 |
| DIBENZOFURAN | ND | 19 | 5.6 |
| DIETHYLPHTHALATE | ND | 19 | 4.7 |
| DIMETHYLPHTHALATE | ND | 9.4 | 4.7 |
| FLUORANTHENE | ND | 9.4 | 4.7 |
| FLUORENE | ND | 19 | 5.6 |
| HEXACHLOROBENZENE | ND | 9.4 | 4.7 |
| HEXACHLOROCYCLOPENTADIENE | ND | 9.4 | 4.7 |
| HEXACHLOROETHANE | ND | 9.4 | 4.7 |
| INDENO(1,2,3-CD)PYRENE | ND | 9.4 | 4.7 |
| ISOPHORONE | ND | 9.4 | 4.7 |
| N-NITROSO-DI-N-PROPYLAMINE | ND | 9.4 | 4.7 |
| N-NITROSODIPHENYLAMINE (2) | ND | 9.4 | 4.7 |
| NITROBENZENE | ND | 19 | 4.7 |
| PENTACHLOROPHENOL | ND | 19 | 2.6 |
| PHENANTHRENE | ND | 9.4 | 4.7 |
| PHENOL | ND | 9.4 | 4.7 |
| PYRENE | ND | 9.4 | 4.7 |
| 1,1'-BIPHENYL | ND | 9.4 | 2.3 |
| ACETOPHENONE | ND | 19 | 9.4 |
| ATRAZINE | ND | 9.4 | 4.7 |
| BENZALDEHYDE | ND | 9.4 | 4.7 |
| CAPROLACTAM | ND | 9.4 | 4.7 |
| CARBAZOLE | ND | 9.4 | 4.7 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| 2,4,6-TRIBROMOPHENOL | 77 | 25-134 |
| 2-FLUOROBIPHENYL | 76 | 43-125 |
| 2-FLUOROPHENOL | 67 | 25-122 |
| NITROBENZENE-D5 | 79 | 32-122 |
| PHENOL-D5 | 71 | 25-122 |
| TERPHENYL-D14 | 92 | 42-126 |

RL: Reporting Limit
 (1): Cannot be separated from 3-Methylphenol
 (2): Cannot be separated from Diphenylamine

SW 3520C/8270C
 SEMI VOLATILE ORGANICS BY GC/MS

| | |
|------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 07/06/04 |
| Project : MFA SITE 1, CTO 86 | Date Received: 07/08/04 |
| Batch No. : 04G024 | Date Extracted: 07/12/04 15:30 |
| Sample ID: 86-S1-027 | Date Analyzed: 07/15/04 22:53 |
| Lab Samp ID: G024-03 | Dilution Factor: .94 |
| Lab File ID: RGX082 | Matrix : WATER |
| Ext Btch ID: SVG008W | % Moisture : NA |
| Calib. Ref.: RFX031 | Instrument ID : T-042 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 2,4,5-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4,6-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DICHLOROPHENOL | ND | 9.4 | 4.7 |
| 5,4-DIMETHYLPHENOL | ND | 9.4 | 4.7 |
| 5,4-DINITROPHENOL | ND | 19 | 9.4 |
| 5,4-DINITROTOLUENE | ND | 19 | 9.4 |
| 5,6-DINITROTOLUENE | ND | 19 | 5.6 |
| 2-CHLORONAPHTHALENE | ND | 9.4 | 4.7 |
| 2-CHLOROPHENOL | ND | 9.4 | 4.7 |
| 2-METHYLNAPHTHALENE | ND | 9.4 | 4.7 |
| 2-METHYLPHENOL | ND | 9.4 | 4.7 |
| 2-NITROANILINE | ND | 19 | 5.6 |
| 2-NITROPHENOL | ND | 9.4 | 4.7 |
| 3,3'-DICHLOROENZIDINE | ND | 9.4 | 4.7 |
| 3-NITROANILINE | ND | 19 | 9.4 |
| 4,6-DINITRO-2-METHYLPHENOL | ND | 19 | 6.6 |
| 4-BROMOPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-CHLORO-3-METHYLPHENOL | ND | 9.4 | 4.7 |
| 4-CHLOROANILINE | ND | 9.4 | 4.7 |
| 4-CHLOROPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-METHYLPHENOL (1) | ND | 9.4 | 4.7 |
| 4-NITROANILINE | ND | 9.4 | 4.7 |
| 4-NITROPHENOL | ND | 19 | 4.7 |
| ACENAPHTHENE | ND | 9.4 | 4.7 |
| ACENAPHTHYLENE | ND | 9.4 | 4.7 |
| ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)PYRENE | ND | 9.4 | 4.7 |
| BENZO(B)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(K)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(G,H,I)PERYLENE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHOXY)METHANE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-CHLOROISOPROPYL)ETHER | ND | 19 | 9.4 |
| BIS(2-ETHYLHEXYL)PHTHALATE | ND | 9.4 | 4.7 |
| BUTYLBENZYLPHTHALATE | ND | 9.4 | 4.7 |
| CHRYSENE | ND | 9.4 | 4.7 |
| DI-N-BUTYLPHTHALATE | ND | 9.4 | 4.7 |
| DI-N-OCTYLPHTHALATE | ND | 9.4 | 4.7 |
| DIBENZO(A,H)ANTHRACENE | ND | 9.4 | 4.7 |
| DIBENZOFURAN | ND | 19 | 5.6 |
| DIETHYLPHTHALATE | ND | 19 | 4.7 |
| DIMETHYLPHTHALATE | ND | 9.4 | 4.7 |
| FLUORANTHENE | ND | 9.4 | 4.7 |
| FLUORENE | ND | 19 | 5.6 |
| HEXACHLOROBENZENE | ND | 9.4 | 5.6 |
| HEXACHLOROCYCLOPENTADIENE | ND | 9.4 | 4.7 |
| HEXACHLOROETHANE | ND | 9.4 | 4.7 |
| INDENO(1,2,3-CD)PYRENE | ND | 9.4 | 4.7 |
| ISOPHORONE | ND | 9.4 | 4.7 |
| N-NITROSO-DI-N-PROPYLAMINE | ND | 9.4 | 4.7 |
| N-NITROSODIPHENYLAMINE (2) | ND | 9.4 | 4.7 |
| NITROBENZENE | ND | 19 | 9.4 |
| PENTACHLOROPHENOL | ND | 19 | 5.6 |
| PHENANTHRENE | ND | 9.4 | 4.7 |
| PHENOL | ND | 9.4 | 4.7 |
| PYRENE | ND | 9.4 | 4.7 |
| 1,1'-BIPHENYL | ND | 9.4 | 4.7 |
| ACETOPHENONE | ND | 9.4 | 2.3 |
| ATRAZINE | ND | 19 | 9.4 |
| BENZALDEHYDE | ND | 9.4 | 4.7 |
| CAPROLACTAM | ND | 9.4 | 4.7 |
| CARBAZOLE | ND | 9.4 | 4.7 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| 2,4,6-TRIBROMOPHENOL | 81 | 25-134 |
| 2-FLUOROBIPHENYL | 74 | 43-125 |
| 2-FLUOROPHENOL | 67 | 25-125 |
| NITROBENZENE-D5 | 78 | 42-125 |
| PHENOL-D5 | 71 | 25-125 |
| TERPHENYL-D14 | 95 | 42-126 |

RL: Reporting Limit
 (1): Cannot be separated from 3-Methylphenol
 (2): Cannot be separated from Diphenylamine

SW 3520C/8270C
 SEMI VOLATILE ORGANICS BY GC/MS

| | |
|------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 07/06/04 |
| Project : MFA SITE 1, CTO 86 | Date Received: 07/08/04 |
| Batch No. : 04G024 | Date Extracted: 07/12/04 15:30 |
| Sample ID: 86-S1-026 | Date Analyzed: 07/15/04 23:28 |
| Lab Samp ID: G024-04 | Dilution Factor: .94 |
| Lab File ID: RGX083 | Matrix : WATER |
| Ext Btch ID: SVG008W | % Moisture : NA |
| Calib. Ref.: RFX031 | Instrument ID : T-042 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 2,4,5-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4,6-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DIMETHYLPHENOL | ND | 9.4 | 4.7 |
| 2,4-DINITROPHENOL | ND | 19 | 9.4 |
| 2,4-DINITROTOLUENE | ND | 19 | 9.4 |
| 2,6-DINITROTOLUENE | ND | 19 | 5.6 |
| 2-CHLORONAPHTHALENE | ND | 9.4 | 4.7 |
| 2-CHLOROPHENOL | ND | 9.4 | 4.7 |
| 2-METHYLNAPHTHALENE | ND | 9.4 | 4.7 |
| 2-METHYLPHENOL | ND | 19 | 5.6 |
| 2-NITROANILINE | ND | 9.4 | 4.7 |
| 2-NITROPHENOL | ND | 9.4 | 4.7 |
| 3,3'-DICHLOROBENZIDINE | ND | 9.4 | 4.7 |
| 3-NITROANILINE | ND | 19 | 9.4 |
| 4,6-DINITRO-2-METHYLPHENOL | ND | 19 | 6.6 |
| 4-BROMOPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-CHLORO-5-METHYLPHENOL | ND | 9.4 | 4.7 |
| 4-CHLOROANILINE | ND | 9.4 | 4.7 |
| 4-CHLOROPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-METHYLPHENOL (1) | ND | 9.4 | 4.7 |
| 4-NITROANILINE | ND | 19 | 4.7 |
| 4-NITROPHENOL | ND | 9.4 | 4.7 |
| ACENAPHTHENE | ND | 9.4 | 4.7 |
| ACENAPHTHYLENE | ND | 9.4 | 4.7 |
| ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)PYRENE | ND | 9.4 | 4.7 |
| BENZO(B)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(K)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(G,H,I)PERYLENE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHOXY)METHANE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-CHLOROISOPROPYL)ETHER | ND | 19 | 9.4 |
| BIS(2-ETHYLHEXYL)PHTHALATE | ND | 9.4 | 4.7 |
| BUTYLBENZYLPHTHALATE | ND | 9.4 | 4.7 |
| CHRYSENE | ND | 9.4 | 4.7 |
| DI-N-BUTYLPHTHALATE | ND | 9.4 | 4.7 |
| DI-N-OCTYLPHTHALATE | ND | 9.4 | 4.7 |
| DIBENZO(A,H)ANTHRACENE | ND | 9.4 | 4.7 |
| DIBENZOFURAN | ND | 19 | 4.7 |
| DIETHYLPHTHALATE | ND | 19 | 2.6 |
| DIMETHYLPHTHALATE | ND | 9.4 | 4.7 |
| FLUORANTHENE | ND | 9.4 | 4.7 |
| FLUORENE | ND | 19 | 5.6 |
| HEXACHLOROBENZENE | ND | 9.4 | 4.7 |
| HEXACHLOROCYCLOPENTADIENE | ND | 9.4 | 4.7 |
| HEXACHLOROETHANE | ND | 9.4 | 4.7 |
| INDENO(1,2,3-CD)PYRENE | ND | 9.4 | 4.7 |
| ISOPHORONE | ND | 9.4 | 4.7 |
| N-NITROSO-DI-N-PROPYLAMINE | ND | 9.4 | 4.7 |
| N-NITROSO-DIPHENYLAMINE (2) | ND | 9.4 | 4.7 |
| NITROBENZENE | ND | 19 | 9.4 |
| PENTACHLOROPHENOL | ND | 19 | 5.6 |
| PHENANTHRENE | ND | 9.4 | 4.7 |
| PHENOL | ND | 9.4 | 4.7 |
| PYRENE | ND | 9.4 | 4.7 |
| 1,1'-BIPHENYL | ND | 9.4 | 2.3 |
| ACETOPHENONE | ND | 19 | 9.4 |
| ATRAZINE | ND | 9.4 | 4.7 |
| BENZALDEHYDE | ND | 9.4 | 4.7 |
| CAPROLACTAM | ND | 9.4 | 4.7 |
| CARBAZOLE | ND | 9.4 | 4.7 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| 2,4,6-TRIBROMOPHENOL | 80 | 25-134 |
| 3-FLUOROBIPHENYL | 69 | 43-125 |
| 3-FLUOROPHENOL | 65 | 25-125 |
| NITROBENZENE-D5 | 78 | 32-125 |
| PHENOL-D5 | 69 | 25-125 |
| TERPHENYL-D14 | 92 | 42-126 |

RL: Reporting Limit
 (1): Cannot be separated from 3-Methylphenol
 (2): Cannot be separated from Diphenylamine

SW 3520C/8270C
 SEMI VOLATILE ORGANICS BY GC/MS

| | |
|------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 07/06/04 |
| Project : MFA SITE 1, CTO 86 | Date Received: 07/08/04 |
| Batch No. : 04G024 | Date Extracted: 07/12/04 15:30 |
| Sample ID: 86-S1-025 | Date Analyzed: 07/16/04 00:04 |
| Lab Samp ID: G024-05 | Dilution Factor: .94 |
| Lab File ID: RGX084 | Matrix : WATER |
| Ext Btch ID: SVG008W | % Moisture : NA |
| Calib. Ref.: RFX031 | Instrument ID : T-042 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 2,4,5-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4,6-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DIMETHYLPHENOL | ND | 9.4 | 4.7 |
| 2,4-DINITROPHENOL | ND | 19 | 9.4 |
| 2,4-DINITROTOLUENE | ND | 19 | 9.4 |
| 2,6-DINITROTOLUENE | ND | 19 | 5.6 |
| 2-CHLORONAPHTHALENE | ND | 9.4 | 4.7 |
| 2-CHLOROPHENOL | ND | 9.4 | 4.7 |
| 2-METHYLNAPHTHALENE | ND | 9.4 | 4.7 |
| 2-METHYLPHENOL | ND | 9.4 | 4.7 |
| 2-NITROANILINE | ND | 19 | 5.6 |
| 2-NITROPHENOL | ND | 9.4 | 4.7 |
| 3,3'-DICHLOROBENZIDINE | ND | 9.4 | 4.7 |
| 3-NITROANILINE | ND | 9.4 | 4.7 |
| 4,6-DINITRO-2-METHYLPHENOL | ND | 19 | 6.6 |
| 4-BROMOPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-CHLORO-3-METHYLPHENOL | ND | 9.4 | 4.7 |
| 4-CHLOROANILINE | ND | 9.4 | 4.7 |
| 4-CHLOROPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-METHYLPHENOL (1) | ND | 9.4 | 4.7 |
| 4-NITROANILINE | ND | 19 | 4.7 |
| 4-NITROPHENOL | ND | 9.4 | 4.7 |
| ACENAPHTHENE | ND | 9.4 | 4.7 |
| ACENAPHTHYLENE | ND | 9.4 | 4.7 |
| ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)PYRENE | ND | 9.4 | 4.7 |
| BENZO(B)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(K)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(G,H,I)PERYLENE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHOXY)METHANE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-CHLOROISOPROPYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-ETHYLHEXYL)PHTHALATE | ND | 19 | 9.4 |
| BUTYLBENZYLPHthalate | ND | 9.4 | 4.7 |
| CHRYSENE | ND | 9.4 | 4.7 |
| D1-N-BUTYLPHthalate | ND | 9.4 | 4.7 |
| D1-N-OCTYLPHthalate | ND | 9.4 | 4.7 |
| DIBENZO(A,H)ANTHRACENE | ND | 9.4 | 4.7 |
| DIBENZOFURAN | ND | 9.4 | 4.7 |
| DIETHYLPHthalate | ND | 19 | 5.6 |
| DIMETHYLPHthalate | ND | 19 | 4.7 |
| FLUORANTHENE | ND | 9.4 | 4.7 |
| FLUORENE | ND | 9.4 | 4.7 |
| HEXACHLOROBENZENE | ND | 19 | 5.6 |
| HEXACHLOROCYCLOPENTADIENE | ND | 9.4 | 4.7 |
| HEXACHLOROETHANE | ND | 9.4 | 4.7 |
| INDENO(1,2,3-CD)PYRENE | ND | 9.4 | 4.7 |
| ISOPHORONE | ND | 9.4 | 4.7 |
| N-NITROSO-D1-N-PROPYLAMINE | ND | 9.4 | 4.7 |
| N-NITROSODIPHENYLAMINE (2) | ND | 9.4 | 4.7 |
| NITROBENZENE | ND | 9.4 | 4.7 |
| PENTACHLOROPHENOL | ND | 19 | 9.4 |
| PHENANTHRENE | ND | 19 | 5.6 |
| PHENOL | ND | 9.4 | 4.7 |
| PYRENE | ND | 9.4 | 4.7 |
| 1,1'-BIPHENYL | ND | 9.4 | 4.7 |
| ACETOPHENONE | ND | 9.4 | 2.3 |
| ATRAZINE | ND | 19 | 9.4 |
| BENZALDEHYDE | ND | 9.4 | 4.7 |
| CAPROLACTAM | ND | 9.4 | 4.7 |
| CARBAZOLE | ND | 9.4 | 4.7 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| 2,4,6-TRIBROMOPHENOL | 76 | 25-134 |
| 2-FLUOROBIPHENYL | 75 | 43-125 |
| 2-FLUOROPHENOL | 64 | 25-125 |
| NITROBENZENE-D5 | 79 | 25-125 |
| PHENOL-D5 | 60 | 25-125 |
| TERPHENYL-D14 | 99 | 42-126 |

RL: Reporting Limit
 (1): Cannot be separated from 3-Methylphenol
 (2): Cannot be separated from Diphenylamine

SW 3520C/8270C
 SEMI VOLATILE ORGANICS BY GC/MS

| | |
|------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 07/06/04 |
| Project : MFA SITE 1, CTO 86 | Date Received: 07/08/04 |
| Batch No. : 04G024 | Date Extracted: 07/12/04 15:30 |
| Sample ID: 86-S1-024 | Date Analyzed: 07/16/04 00:39 |
| Lab Samp ID: G024-06 | Dilution Factor: .94 |
| Lab File ID: RGX085 | Matrix : WATER |
| Ext Btch ID: SVG008W | % Moisture : NA |
| Calib. Ref.: RFX031 | Instrument ID : T-042 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 2,4,5-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4,6-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DIMETHYLPHENOL | ND | 9.4 | 4.7 |
| 2,4-DINITROPHENOL | ND | 19 | 9.4 |
| 2,4-DINITROTOLUENE | ND | 19 | 9.4 |
| 2,6-DINITROTOLUENE | ND | 19 | 5.6 |
| 2-CHLORONAPHTHALENE | ND | 9.4 | 4.7 |
| 2-CHLOROPHENOL | ND | 9.4 | 4.7 |
| 2-METHYLNAPHTHALENE | ND | 9.4 | 4.7 |
| 2-METHYLPHENOL | ND | 19 | 5.6 |
| 2-NITROANILINE | ND | 9.4 | 4.7 |
| 2-NITROPHENOL | ND | 9.4 | 4.7 |
| 3,3'-DICHLOROBENZIDINE | ND | 9.4 | 4.7 |
| 3-NITROANILINE | ND | 19 | 9.4 |
| 4,6-DINITRO-2-METHYLPHENOL | ND | 19 | 6.6 |
| 4-BROMOPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-CHLORO-5-METHYLPHENOL | ND | 9.4 | 4.7 |
| 4-CHLOROANILINE | ND | 9.4 | 4.7 |
| 4-CHLOROPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-METHYLPHENOL (1) | ND | 9.4 | 4.7 |
| 4-NITROANILINE | ND | 19 | 4.7 |
| 4-NITROPHENOL | ND | 9.4 | 4.7 |
| ACENAPHTHENE | ND | 9.4 | 4.7 |
| ACENAPHTHYLENE | ND | 9.4 | 4.7 |
| ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)PYRENE | ND | 9.4 | 4.7 |
| BENZO(B)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(K)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(G,H,I)PERYLENE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHOXY)METHANE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-CHLOROISOPROPYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-ETHYLHEXYL)PHTHALATE | ND | 19 | 9.4 |
| BUTYLBENZYLPHTHALATE | ND | 9.4 | 4.7 |
| CHRYSENE | ND | 9.4 | 4.7 |
| DI-N-BUTYLPHTHALATE | ND | 9.4 | 4.7 |
| DI-N-OCTYLPHTHALATE | ND | 9.4 | 4.7 |
| DIBENZO(A,H)ANTHRACENE | ND | 9.4 | 4.7 |
| DIBENZOFURAN | ND | 9.4 | 4.7 |
| DIETHYLPHTHALATE | ND | 19 | 5.6 |
| DIMETHYLPHTHALATE | ND | 9.4 | 4.7 |
| FLUORANTHENE | ND | 9.4 | 4.7 |
| FLUORENE | ND | 19 | 5.6 |
| HEXACHLOROBENZENE | ND | 9.4 | 4.7 |
| HEXACHLOROCYCLOPENTADIENE | ND | 9.4 | 4.7 |
| HEXACHLOROETHANE | ND | 9.4 | 4.7 |
| INDENO(1,2,3-CD)PYRENE | ND | 9.4 | 4.7 |
| ISOPHORONE | ND | 9.4 | 4.7 |
| N-NITROSO-DI-N-PROPYLAMINE | ND | 9.4 | 4.7 |
| N-NITROSODIPHENYLAMINE (2) | ND | 9.4 | 4.7 |
| NITROBENZENE | ND | 9.4 | 4.7 |
| PENTACHLOROPHENOL | ND | 19 | 9.4 |
| PHENANTHRENE | ND | 19 | 5.6 |
| PHENOL | ND | 9.4 | 4.7 |
| PYRENE | ND | 9.4 | 4.7 |
| 1,1'-BIPHENYL | ND | 9.4 | 4.7 |
| ACETOPHENONE | ND | 19 | 6.4 |
| ATRAZINE | ND | 9.4 | 4.7 |
| BENZALDEHYDE | ND | 9.4 | 4.7 |
| CAPROLACTAM | ND | 9.4 | 4.7 |
| CARBAZOLE | ND | 9.4 | 4.7 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| 2,4,6-TRIBROMOPHENOL | 71 | 25-134 |
| 2-FLUOROBIPHENYL | 68 | 43-125 |
| 2-FLUOROPHENOL | 61 | 25-125 |
| NITROBENZENE-D5 | 75 | 32-125 |
| PHENOL-D5 | 64 | 25-125 |
| TERPHENYL-D14 | 92 | 42-126 |

RL: Reporting Limit
 (1): Cannot be separated from 3-Methylphenol
 (2): Cannot be separated from Diphenylamine

SW 3520C/8270C
 SEMI VOLATILE ORGANICS BY GC/MS

| | |
|------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 07/06/04 |
| Project : MFA SITE 1, CTO 86 | Date Received: 07/08/04 |
| Batch No. : 04G024 | Date Extracted: 07/12/04 15:30 |
| Sample ID: 86-S1-023 | Date Analyzed: 07/16/04 01:14 |
| Lab Samp ID: G024-07 | Dilution Factor: .94 |
| Lab File ID: RGX086 | Matrix : WATER |
| Ext Btch ID: SVG008W | % Moisture : NA |
| Calib. Ref.: RFX031 | Instrument ID : T-042 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 2,4,5-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4,6-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DIMETHYLPHENOL | ND | 9.4 | 4.7 |
| 2,4-DINITROPHENOL | ND | 19 | 9.4 |
| 2,4-DINITROTOLUENE | ND | 19 | 9.4 |
| 2,6-DINITROTOLUENE | ND | 19 | 5.6 |
| 2-CHLORONAPHTHALENE | ND | 9.4 | 4.7 |
| 2-CHLOROPHENOL | ND | 9.4 | 4.7 |
| 2-METHYLNAPHTHALENE | ND | 9.4 | 4.7 |
| 2-METHYLPHENOL | ND | 9.4 | 4.7 |
| 2-NITROANILINE | ND | 19 | 5.6 |
| 2-NITROPHENOL | ND | 9.4 | 4.7 |
| 3,3'-DICHLORO BENZIDINE | ND | 9.4 | 4.7 |
| 3-NITROANILINE | ND | 9.4 | 4.7 |
| 4,6-DINITRO-2-METHYLPHENOL | ND | 19 | 9.4 |
| 4-BROMOPHENYL-PHENYL ETHER | ND | 19 | 6.6 |
| 4-CHLORO-3-METHYLPHENOL | ND | 9.4 | 4.7 |
| 4-CHLOROANILINE | ND | 9.4 | 4.7 |
| 4-CHLOROPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-METHYLPHENOL (1) | ND | 9.4 | 4.7 |
| 4-NITROANILINE | ND | 9.4 | 4.7 |
| 4-NITROPHENOL | ND | 19 | 4.7 |
| ACENAPHTHENE | ND | 9.4 | 4.7 |
| ACENAPHTHYLENE | ND | 9.4 | 4.7 |
| ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)PYRENE | ND | 9.4 | 4.7 |
| BENZO(B)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(K)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(G,H,I)PERYLENE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHOXY)METHANE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-CHLOROISOPROPYL)ETHER | ND | 19 | 9.4 |
| BIS(2-ETHYLHEXYL)PHTHALATE | ND | 9.4 | 4.7 |
| BUTYLBENZYLPHTHALATE | ND | 9.4 | 4.7 |
| CHRYSENE | ND | 9.4 | 4.7 |
| DI-N-BUTYLPHTHALATE | ND | 9.4 | 4.7 |
| DI-N-OCTYLPHTHALATE | ND | 9.4 | 4.7 |
| DIBENZO(A,H)ANTHRACENE | ND | 9.4 | 4.7 |
| DIBENZOFURAN | ND | 9.4 | 4.7 |
| DIETHYLPHTHALATE | ND | 19 | 5.6 |
| DIMETHYLPHTHALATE | ND | 19 | 4.7 |
| FLUORANTHENE | ND | 9.4 | 4.7 |
| FLUORENE | ND | 19 | 5.6 |
| HEXACHLOROBENZENE | ND | 9.4 | 4.7 |
| HEXACHLOROCYCLOPENTADIENE | ND | 9.4 | 4.7 |
| HEXACHLOROETHANE | ND | 9.4 | 4.7 |
| INDENO(1,2,3-CD)PYRENE | ND | 9.4 | 4.7 |
| ISOPHTHONONE | ND | 9.4 | 4.7 |
| N-NITROSO-DI-N-PROPYLAMINE | ND | 9.4 | 4.7 |
| N-NITROSODIPHENYLAMINE (2) | ND | 9.4 | 4.7 |
| NITROBENZENE | ND | 9.4 | 4.7 |
| PENTACHLOROPHENOL | ND | 19 | 9.4 |
| PHENANTHRENE | ND | 19 | 5.6 |
| PHENOL | ND | 9.4 | 4.7 |
| PYRENE | ND | 9.4 | 4.7 |
| 1,1'-BIPHENYL | ND | 9.4 | 4.7 |
| ACETOPHENONE | ND | 19 | 2.3 |
| ATRAZINE | ND | 19 | 4.7 |
| BENZALDEHYDE | ND | 9.4 | 4.7 |
| CAPROLACTAM | ND | 9.4 | 4.7 |
| CARBAZOLE | ND | 9.4 | 4.7 |
| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT | |
| 2,4,6-TRIBROMOPHENOL | 82 | 25-134 | |
| 2-FLUOROBIPHENYL | 73 | 43-125 | |
| 2-FLUOROPHENOL | 65 | 25-125 | |
| NITROBENZENE-D5 | 79 | 32-125 | |
| PHENOL-D5 | 70 | 25-125 | |
| TERPHENYL-D14 | 101 | 42-126 | |

RL: Reporting Limit

(1): Cannot be separated from 3-Methylphenol

(2): Cannot be separated from Diphenylamine

SW 3520C/8270C
 SEMI VOLATILE ORGANICS BY GC/MS

| | |
|------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 07/06/04 |
| Project : MFA SITE 1, CTO 86 | Date Received: 07/08/04 |
| Batch No. : 04G024 | Date Extracted: 07/12/04 15:30 |
| Sample ID: 86-S1-022 | Date Analyzed: 07/16/04 01:49 |
| Lab Samp ID: G024-08 | Dilution Factor: .95 |
| Lab File ID: RGX087 | Matrix : WATER |
| Ext Btch ID: SVG008W | % Moisture : NA |
| Calib. Ref.: RFX031 | Instrument ID : T-042 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 2,4,5-TRICHLOROPHENOL | ND | 9.5 | 4.8 |
| 2,4,6-TRICHLOROPHENOL | ND | 9.5 | 4.8 |
| 2,4-DICHLOROPHENOL | ND | 9.5 | 4.8 |
| 2,4-DIMETHYLPHENOL | ND | 9.5 | 4.8 |
| 2,4-DINITROPHENOL | ND | 10 | 9.5 |
| 2,4-DINITROTOLUENE | ND | 10 | 9.5 |
| 2,6-DINITROTOLUENE | ND | 10 | 5.7 |
| 2-CHLORONAPHTHALENE | ND | 9.5 | 4.8 |
| 2-CHLOROPHENOL | ND | 9.5 | 4.8 |
| 2-METHYLNAPHTHALENE | ND | 9.5 | 4.8 |
| 2-METHYLPHENOL | ND | 10 | 4.9 |
| 2-NITROANILINE | ND | 10 | 2.5 |
| 2-NITROPHENOL | ND | 9.5 | 4.8 |
| 3,3'-DICHLOROBENZIDINE | ND | 9.5 | 4.8 |
| 3-NITROANILINE | ND | 10 | 4.8 |
| 4,6-DINITRO-2-METHYLPHENOL | ND | 10 | 9.5 |
| 4-BROMOPHENYL-PHENYL ETHER | ND | 9.5 | 6.6 |
| 4-CHLORO-3-METHYLPHENOL | ND | 9.5 | 4.8 |
| 4-CHLOROANILINE | ND | 9.5 | 4.8 |
| 4-CHLOROPHENYL-PHENYL ETHER | ND | 9.5 | 4.8 |
| 4-METHYLPHENOL (1) | ND | 9.5 | 4.8 |
| 4-NITROANILINE | ND | 9.5 | 4.8 |
| 4-NITROPHENOL | ND | 10 | 4.8 |
| ACENAPHTHENE | ND | 9.5 | 4.8 |
| ACENAPHTHYLENE | ND | 9.5 | 4.8 |
| ANTHRACENE | ND | 9.5 | 4.8 |
| BENZO(A)ANTHRACENE | ND | 9.5 | 4.8 |
| BENZO(A)PYRENE | ND | 9.5 | 4.8 |
| BENZO(B)FLUORANTHENE | ND | 9.5 | 4.8 |
| BENZO(K)FLUORANTHENE | ND | 9.5 | 4.8 |
| BENZO(G,H,I)PERYLENE | ND | 9.5 | 4.8 |
| BIS(2-CHLOROETHOXY)METHANE | ND | 9.5 | 4.8 |
| BIS(2-CHLOROETHYL)ETHER | ND | 9.5 | 4.8 |
| BIS(2-CHLOROISOPROPYL)ETHER | ND | 10 | 9.5 |
| BIS(2-ETHYLHEXYL)PHTHALATE | ND | 9.5 | 4.8 |
| BUTYLBENZYLPHTHALATE | ND | 9.5 | 4.8 |
| CHRYSENE | ND | 9.5 | 4.8 |
| DI-N-BUTYLPHTHALATE | ND | 9.5 | 4.8 |
| DI-N-OCTYLPHTHALATE | ND | 9.5 | 4.8 |
| DIBENZO(A,H)ANTHRACENE | ND | 9.5 | 4.8 |
| DIBENZOFURAN | ND | 9.5 | 4.8 |
| DIETHYLPHTHALATE | ND | 1 | 3.7 |
| DIMETHYLPHTHALATE | ND | 9.5 | 4.8 |
| FLUORANTHENE | ND | 9.5 | 4.8 |
| FLUORENE | ND | 10 | 5.9 |
| HEXACHLOROBENZENE | ND | 9.5 | 2.8 |
| HEXACHLOROCYCLOPENTADIENE | ND | 9.5 | 4.8 |
| HEXACHLOROETHANE | ND | 9.5 | 4.8 |
| INDENO(1,2,3-CD)PYRENE | ND | 9.5 | 4.8 |
| ISOPHORONE | ND | 9.5 | 4.8 |
| N-NITROSO-DI-N-PROPYLAMINE | ND | 9.5 | 4.8 |
| N-NITROSODIPHENYLAMINE (2) | ND | 9.5 | 4.8 |
| NITROBENZENE | ND | 9.5 | 4.8 |
| PENTACHLOROPHENOL | ND | 10 | 9.5 |
| PHENANTHRENE | ND | 10 | 5.7 |
| PHENOL | ND | 9.5 | 4.8 |
| PYRENE | ND | 9.5 | 4.8 |
| 1,1'-BIPHENYL | ND | 9.5 | 4.8 |
| ACETOPHENONE | ND | 9.5 | 2.5 |
| ATRAZINE | ND | 9.5 | 4.8 |
| BENZALDEHYDE | ND | 9.5 | 4.8 |
| CAPROLACTAM | ND | 9.5 | 4.8 |
| CARBAZOLE | ND | 9.5 | 4.8 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| 2,4,6-TRIBROMOPHENOL | 68 | 25-134 |
| 2-FLUOROBIPHENYL | 59 | 43-125 |
| 2-FLUOROPHENOL | 48 | 25-125 |
| NITROBENZENE-D5 | 58 | 32-125 |
| PHENOL-D5 | 54 | 25-125 |
| TERPHENYL-D14 | 92 | 42-126 |

RL: Reporting Limit
 (1): Cannot be separated from 3-Methylphenol
 (2): Cannot be separated from Diphenylamine

SW 3520C/8270C
 SEMI VOLATILE ORGANICS BY GC/MS

| | |
|------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 07/07/04 |
| Project : MFA SITE 1, CTD 86 | Date Received: 07/08/04 |
| Batch No. : 04G024 | Date Extracted: 07/12/04 15:30 |
| Sample ID: 86-S1-020 | Date Analyzed: 07/16/04 03:34 |
| Lab Samp ID: G024-09 | Dilution Factor: .94 |
| Lab File ID: RGX090 | Matrix : WATER |
| Ext Btch ID: SVG008W | % Moisture : NA |
| Calib. Ref.: RFX031 | Instrument ID : 1-042 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 2,4,5-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4,6-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DIMETHYLPHENOL | ND | 9.4 | 4.7 |
| 2,4-DINITROPHENOL | ND | 19 | 9.4 |
| 2,4-DINITROTOLUENE | ND | 19 | 9.4 |
| 2,6-DINITROTOLUENE | ND | 19 | 5.6 |
| 2-CHLORONAPHTHALENE | ND | 9.4 | 4.7 |
| 2-CHLOROPHENOL | ND | 9.4 | 4.7 |
| 2-METHYLNAPHTHALENE | ND | 9.4 | 4.7 |
| 2-METHYLPHENOL | ND | 19 | 5.6 |
| 2-NITROANILINE | ND | 9.4 | 4.7 |
| 2-NITROPHENOL | ND | 9.4 | 4.7 |
| 3,3'-DICHLOROBENZIDINE | ND | 9.4 | 4.7 |
| 3-NITROANILINE | ND | 19 | 9.4 |
| 4,6-DINITRO-2-METHYLPHENOL | ND | 19 | 6.6 |
| 4-BROMOPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-CHLORO-3-METHYLPHENOL | ND | 9.4 | 4.7 |
| 4-CHLOROANILINE | ND | 9.4 | 4.7 |
| 4-CHLOROPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-METHYLPHENOL (1) | ND | 9.4 | 4.7 |
| 4-NITROANILINE | ND | 19 | 4.7 |
| 4-NITROPHENOL | ND | 9.4 | 4.7 |
| ACENAPHTHENE | ND | 9.4 | 4.7 |
| ACENAPHTHYLENE | ND | 9.4 | 4.7 |
| ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)PYRENE | ND | 9.4 | 4.7 |
| BENZO(B)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(K)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(G,H,I)PERYLENE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHOXY)METHANE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-CHLOROISOPROPYL)ETHER | ND | 19 | 9.4 |
| BIS(2-ETHYLHEXYL)PHTHALATE | ND | 9.4 | 4.7 |
| BUTYLBENZYLPHTHALATE | ND | 9.4 | 4.7 |
| CHRYSENE | ND | 9.4 | 4.7 |
| DI-N-BUTYLPHTHALATE | ND | 9.4 | 4.7 |
| DI-N-OCTYLPHTHALATE | ND | 9.4 | 4.7 |
| DIBENZO(A,H)ANTHRACENE | ND | 9.4 | 4.7 |
| DIBENZOFURAN | ND | 19 | 4.7 |
| DIETHYLPHTHALATE | ND | 19 | 5.6 |
| DIMETHYLPHTHALATE | ND | 9.4 | 4.7 |
| FLUORANTHENE | ND | 9.4 | 4.7 |
| FLUORENE | ND | 19 | 5.6 |
| HEXACHLOROBENZENE | ND | 9.4 | 4.7 |
| HEXACHLOROCYCLOPENTADIENE | ND | 9.4 | 4.7 |
| HEXACHLOROETHANE | ND | 9.4 | 4.7 |
| INDENO(1,2,3-CD)PYRENE | ND | 9.4 | 4.7 |
| ISOPHORONE | ND | 9.4 | 4.7 |
| N-NITROSO-DI-N-PROPYLAMINE | ND | 9.4 | 4.7 |
| N-NITROSODIPHENYLAMINE (2) | ND | 9.4 | 4.7 |
| NITROBENZENE | ND | 19 | 9.4 |
| PENTACHLOROPHENOL | ND | 19 | 5.6 |
| PHENANTHRENE | ND | 9.4 | 4.7 |
| PHENOL | ND | 9.4 | 4.7 |
| PYRENE | ND | 9.4 | 4.7 |
| 1,1'-BIPHENYL | ND | 9.4 | 4.7 |
| ACETOPHENONE | ND | 19 | 5.6 |
| ATRAZINE | ND | 9.4 | 4.7 |
| BENZALDEHYDE | ND | 9.4 | 4.7 |
| CAPROLACTAM | ND | 9.4 | 4.7 |
| CARBAZOLE | ND | 9.4 | 4.7 |
| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT | |
| 2,4,6-TRIBROMOPHENOL | 82 | 25-134 | |
| 2-FLUOROBIPHENYL | 76 | 43-125 | |
| 2-FLUOROPHENOL | 65 | 25-125 | |
| NITROBENZENE-D5 | 78 | 32-125 | |
| PHENOL-D5 | 69 | 25-125 | |
| TERPHENYL-D14 | 107 | 42-126 | |

RL: Reporting Limit
 (1): Cannot be separated from 3-Methylphenol
 (2): Cannot be separated from Diphenylamine

SW 3520C/8270C
 SEMI VOLATILE ORGANICS BY GC/MS

| | |
|-------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 07/07/04 |
| Project : MFA, SITE 1, CTO 86 | Date Received: 07/08/04 |
| Batch No. : 04G024 | Date Extracted: 07/12/04 15:30 |
| Sample ID: 86-S1-019 | Date Analyzed: 07/16/04 04:09 |
| Lab Samp ID: G024-10 | Dilution Factor: 94 |
| Lab File ID: RGX091 | Matrix: WATER |
| Ext. Btch ID: SV6008W | % Moisture: NA |
| Calib. Ref.: RFX031 | Instrument ID: T-042 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 2,4,5-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4,6-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DIMETHYLPHENOL | ND | 9.4 | 4.7 |
| 2,4-DINITROPHENOL | ND | 19 | 9.4 |
| 2,4-DINITROTOLUENE | ND | 19 | 9.4 |
| 2,6-DINITROTOLUENE | ND | 19 | 5.6 |
| 2-CHLORONAPHTHALENE | ND | 9.4 | 4.7 |
| 2-CHLOROPHENOL | ND | 9.4 | 4.7 |
| 2-METHYLNAPHTHALENE | ND | 9.4 | 4.7 |
| 2-METHYLPHENOL | ND | 19 | 5.6 |
| 2-NITROANILINE | ND | 9.4 | 4.7 |
| 2-NITROPHENOL | ND | 9.4 | 4.7 |
| 3,3'-DICHLOROBENZIDINE | ND | 9.4 | 4.7 |
| 3-NITROANILINE | ND | 9.4 | 4.7 |
| 4,6-DINITRO-2-METHYLPHENOL | ND | 19 | 9.4 |
| 4-BROMOPHENYL-PHENYL ETHER | ND | 19 | 6.6 |
| 4-CHLORO-3-METHYLPHENOL | ND | 9.4 | 4.7 |
| 4-CHLOROANILINE | ND | 9.4 | 4.7 |
| 4-CHLOROPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-METHYLPHENOL (1) | ND | 9.4 | 4.7 |
| 4-NITROANILINE | ND | 19 | 4.7 |
| 4-NITROPHENOL | ND | 9.4 | 4.7 |
| ACENAPHTHENE | ND | 9.4 | 4.7 |
| ACENAPHTHYLENE | ND | 9.4 | 4.7 |
| ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)PYRENE | ND | 9.4 | 4.7 |
| BENZO(B)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(K)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(G,H,I)PERYLENE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHOXY)METHANE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-CHLOROISOPROPYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-ETHYLHEXYL)PHTHALATE | ND | 19 | 9.4 |
| BUTYLBENZYLPHTHALATE | ND | 9.4 | 4.7 |
| CHRYSENE | ND | 9.4 | 4.7 |
| DI-N-BUTYLPHTHALATE | ND | 9.4 | 4.7 |
| DI-N-OCTYLPHTHALATE | ND | 9.4 | 4.7 |
| DIBENZO(A,H)ANTHRACENE | ND | 9.4 | 4.7 |
| DIBENZOFURAN | ND | 19 | 5.6 |
| DIETHYLPHTHALATE | ND | 19 | 4.7 |
| DIMETHYLPHTHALATE | ND | 9.4 | 4.7 |
| FLUORANTHENE | ND | 9.4 | 4.7 |
| FLUORENE | ND | 19 | 5.6 |
| HEXACHLOROBENZENE | ND | 9.4 | 4.7 |
| HEXACHLOROCYCLOPENTADIENE | ND | 9.4 | 4.7 |
| HEXACHLOROETHANE | ND | 9.4 | 4.7 |
| INDENO(1,2,3-CD)PYRENE | ND | 9.4 | 4.7 |
| ISOPHORONE | ND | 9.4 | 4.7 |
| N-NITROSO-DI-N-PROPYLAMINE | ND | 9.4 | 4.7 |
| N-NITROSODIPHENYLAMINE (2) | ND | 9.4 | 4.7 |
| NITROBENZENE | ND | 9.4 | 4.7 |
| PENTACHLOROPHENOL | ND | 19 | 9.4 |
| PHENANTHRENE | ND | 19 | 2.6 |
| PHENOL | ND | 9.4 | 4.7 |
| PYRENE | ND | 9.4 | 4.7 |
| 1,1'-BIPHENYL | ND | 9.4 | 2.3 |
| ACETOPHENONE | ND | 19 | 9.4 |
| ATRAZINE | ND | 9.4 | 4.7 |
| BENZALDEHYDE | ND | 9.4 | 4.7 |
| CAPROLACTAM | ND | 9.4 | 4.7 |
| CARBAZOLE | ND | 9.4 | 4.7 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| 2,4,6-TRIBROMOPHENOL | 67 | 25-134 |
| 2-FLUOROBIPHENYL | 65 | 43-125 |
| 2-FLUOROPHENOL | 57 | 25-125 |
| NITROBENZENE-D5 | 69 | 32-125 |
| PHENOL-D5 | 61 | 25-125 |
| TERPHENYL-D14 | 85 | 42-126 |

RL: Reporting Limit
 (1): Cannot be separated from 3-Methylphenol
 (2): Cannot be separated from Diphenylamine

SW 3520C/8270C
 SEMI VOLATILE ORGANICS BY GC/MS

| | |
|------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 07/07/04 |
| Project : MFA SITE 1, CTO 86 | Date Received: 07/08/04 |
| Batch No. : 04G024 | Date Extracted: 07/12/04 15:30 |
| Sample ID: 86-S1-018 | Date Analyzed: 07/19/04 15:55 |
| Lab Samp ID: G024-11W | Dilution Factor: .94 |
| Lab File ID: RGX123 | Matrix : WATER |
| Ext Btch ID: SVG008W | % Moisture : NA |
| Calib. Ref.: RFX031 | Instrument ID : T-042 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 2,4,5-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4,6-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DIMETHYLPHENOL | ND | 9.4 | 4.7 |
| 2,4-DINITROPHENOL | ND | 19 | 9.4 |
| 3,4-DINITROTOLUENE | ND | 19 | 9.4 |
| 3,5-DINITROTOLUENE | ND | 19 | 5.6 |
| 2-CHLORONAPHTHALENE | ND | 9.4 | 4.7 |
| 2-CHLOROPHENOL | ND | 9.4 | 4.7 |
| 2-METHYLNAPHTHALENE | ND | 9.4 | 4.7 |
| 2-METHYLPHENOL | ND | 9.4 | 4.7 |
| 2-NITROANILINE | ND | 19 | 5.6 |
| 2-NITROPHENOL | ND | 9.4 | 4.7 |
| 3,3'-DICHLOROBENZIDINE | ND | 9.4 | 4.7 |
| 3-NITROANILINE | ND | 19 | 9.4 |
| 4,6-DINITRO-2-METHYLPHENOL | ND | 19 | 6.6 |
| 4-BROMOPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-CHLORO-3-METHYLPHENOL | ND | 9.4 | 4.7 |
| 4-CHLOROANILINE | ND | 9.4 | 4.7 |
| 4-CHLOROPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-METHYLPHENOL (1) | ND | 9.4 | 4.7 |
| 4-NITROANILINE | ND | 19 | 4.7 |
| 4-NITROPHENOL | ND | 9.4 | 4.7 |
| ACENAPHTHENE | ND | 9.4 | 4.7 |
| ACENAPHTHYLENE | ND | 9.4 | 4.7 |
| ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)PYRENE | ND | 9.4 | 4.7 |
| BENZO(B)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(K)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(G,H,I)PERYLENE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHOXY)METHANE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-CHLOROISOPROPYL)ETHER | ND | 19 | 9.4 |
| BIS(2-ETHYLHEXYL)PHTHALATE | ND | 9.4 | 4.7 |
| BUTYLBENZYLPHthalate | ND | 9.4 | 4.7 |
| CHRYSENE | ND | 9.4 | 4.7 |
| DI-N-BUTYLPHTHALATE | ND | 9.4 | 4.7 |
| DI-N-OCTYLPHTHALATE | ND | 9.4 | 4.7 |
| DIBENZO(A,H)ANTHRACENE | ND | 9.4 | 4.7 |
| DIBENZOFURAN | ND | 9.4 | 4.7 |
| DIETHYLPHTHALATE | ND | 19 | 5.6 |
| DIMETHYLPHTHALATE | ND | 19 | 4.7 |
| FLUORANTHENE | ND | 9.4 | 4.7 |
| FLUORENE | ND | 9.4 | 4.7 |
| HEXACHLOROBENZENE | ND | 19 | 5.6 |
| HEXACHLOROCYCLOPENTADIENE | ND | 9.4 | 4.7 |
| HEXACHLOROETHANE | ND | 9.4 | 4.7 |
| INDENO(1,2,3-CD)PYRENE | ND | 9.4 | 4.7 |
| ISOPHORONE | ND | 9.4 | 4.7 |
| N-NITROSO-DI-N-PROPYLAMINE | ND | 9.4 | 4.7 |
| N-NITROSODIPHENYLAMINE (2) | ND | 9.4 | 4.7 |
| NITROBENZENE | ND | 19 | 9.4 |
| PENTACHLOROPHENOL | ND | 19 | 5.6 |
| PHENANTHRENE | ND | 9.4 | 4.7 |
| PHENOL | ND | 9.4 | 4.7 |
| PYRENE | ND | 9.4 | 4.7 |
| 1,1'-BIPHENYL | ND | 9.4 | 4.7 |
| ACETOPHENONE | ND | 9.4 | 2.3 |
| ATRAZINE | ND | 19 | 9.4 |
| BENZALDEHYDE | ND | 9.4 | 4.7 |
| CAPROLACTAM | ND | 9.4 | 4.7 |
| CARBAZOLE | ND | 9.4 | 4.7 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| 2,4,6-TRIBROMOPHENOL | 69 | 25-134 |
| 2-FLUOROBIPHENYL | 72 | 43-125 |
| 2-FLUOROPHENOL | 66 | 25-125 |
| NITROBENZENE-D5 | 77 | 25-125 |
| PHENOL-D5 | 70 | 25-125 |
| TERPHENYL-D14 | 88 | 42-126 |

RL: Reporting Limit
 (1): Cannot be separated from 3-Methylphenol
 (2): Cannot be separated from Diphenylamine

SW 3520C/8270C
 SEMI VOLATILE ORGANICS BY GC/MS

| | |
|------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 07/07/04 |
| Project : MFA SITE 1, CTO 86 | Date Received: 07/08/04 |
| Batch No. : 04G024 | Date Extracted: 07/12/04 15:30 |
| Sample ID: 86-S1-017 | Date Analyzed: 07/19/04 16:31 |
| Lab Samp ID: G024-12W | Dilution Factor: .94 |
| Lab File ID: RGX124 | Matrix : WATER |
| Ext Btch ID: SVG008W | % Moisture : NA |
| Calib. Ref.: RFX031 | Instrument ID : T-042 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 2,4,5-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4,6-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DIMETHYLPHENOL | ND | 9.4 | 4.7 |
| 2,4-DINITROPHENOL | ND | 19 | 9.4 |
| 2,4-DINITROTOLUENE | ND | 19 | 9.4 |
| 2,6-DINITROTOLUENE | ND | 19 | 5.6 |
| 2-CHLORONAPHTHALENE | ND | 9.4 | 4.7 |
| 2-CHLOROPHENOL | ND | 9.4 | 4.7 |
| 2-METHYLNAPHTHALENE | ND | 9.4 | 4.7 |
| 2-METHYLPHENOL | ND | 19 | 5.6 |
| 2-NITROANILINE | ND | 9.4 | 4.7 |
| 2-NITROPHENOL | ND | 9.4 | 4.7 |
| 3,3'-DICHLOROBENZIDINE | ND | 9.4 | 4.7 |
| 3-NITROANILINE | ND | 19 | 9.4 |
| 4,6-DINITRO-2-METHYLPHENOL | ND | 19 | 6.6 |
| 4-BROMOPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-CHLORO-3-METHYLPHENOL | ND | 9.4 | 4.7 |
| 4-CHLOROANILINE | ND | 9.4 | 4.7 |
| 4-CHLOROPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-METHYLPHENOL (1) | ND | 9.4 | 4.7 |
| 4-NITROANILINE | ND | 9.4 | 4.7 |
| 4-NITROPHENOL | ND | 19 | 4.7 |
| ACENAPHTHENE | ND | 9.4 | 4.7 |
| ACENAPHTHYLENE | ND | 9.4 | 4.7 |
| ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)PYRENE | ND | 9.4 | 4.7 |
| BENZO(B)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(K)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(G,H,I)PERYLENE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHOXY)METHANE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-CHLOROISOPROPYL)ETHER | ND | 19 | 9.4 |
| BIS(2-ETHYLHEXYL)PHTHALATE | ND | 9.4 | 4.7 |
| BUTYLBENZYLPHTHALATE | ND | 9.4 | 4.7 |
| CHRYSENE | ND | 9.4 | 4.7 |
| DI-N-BUTYLPHTHALATE | ND | 9.4 | 4.7 |
| DI-N-OCTYLPHTHALATE | ND | 9.4 | 4.7 |
| DIBENZO(A,H)ANTHRACENE | ND | 9.4 | 4.7 |
| DIBENZOFURAN | ND | 19 | 5.6 |
| DIETHYLPHTHALATE | ND | 19 | 4.7 |
| DIMETHYLPHTHALATE | ND | 9.4 | 4.7 |
| FLUORANTHENE | ND | 9.4 | 4.7 |
| FLUORENE | ND | 19 | 5.6 |
| HEXACHLOROBENZENE | ND | 9.4 | 4.7 |
| HEXACHLOROCYCLOPENTADIENE | ND | 9.4 | 4.7 |
| HEXACHLOROETHANE | ND | 9.4 | 4.7 |
| INDENO(1,2,3-CD)PYRENE | ND | 9.4 | 4.7 |
| ISOPHORONE | ND | 9.4 | 4.7 |
| N-NITROSO-DI-N-PROPYLAMINE | ND | 9.4 | 4.7 |
| N-NITROSDIPHENYLAMINE (2) | ND | 9.4 | 4.7 |
| NITROBENZENE | ND | 9.4 | 4.7 |
| PENTACHLOROPHENOL | ND | 19 | 9.4 |
| PHENANTHRENE | ND | 19 | 5.6 |
| PHENOL | ND | 9.4 | 4.7 |
| PYRENE | ND | 9.4 | 4.7 |
| 1,1'-BIPHENYL | ND | 9.4 | 2.3 |
| ACETOPHENONE | ND | 19 | 9.4 |
| ATRAZINE | ND | 9.4 | 4.7 |
| BENZALDEHYDE | ND | 9.4 | 4.7 |
| CAPROLACTAM | ND | 9.4 | 4.7 |
| CARBAZOLE | ND | 9.4 | 4.7 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| 2,4,6-TRIBROMOPHENOL | 73 | 25-134 |
| 2-FLUOROBIPHENYL | 71 | 43-125 |
| 2-FLUOROPHENOL | 68 | 25-125 |
| NITROBENZENE-D5 | 81 | 32-125 |
| PHENOL-D5 | 72 | 25-125 |
| TERPHENYL-D14 | 94 | 42-126 |

RL: Reporting Limit
 (1): Cannot be separated from 3-Methylphenol
 (2): Cannot be separated from Diphenylamine

CASE NARRATIVE

CLIENT: TETRA TECH FW, INC.

PROJECT: MFA, SITE 1, CTO 86

SDG: 04G024

**METHOD 7470A
DISSOLVED MERCURY BY COLD VAPOR**

Twelve (12) water samples were received on 07/08/04 for Dissolved Mercury analysis by Method 7470A in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW846, 3rd ed.

1. Holding Time

Analysis met the holding time criteria.

2. Method Blank

Method blank was free of contamination at the reporting limit.

3. Lab Control Sample/Lab Control Sample Duplicate

Lab control results were within the control limits.

4. Serial Dilution/Post Analytical Spike

Sample G024-01 was analyzed for serial dilution. % Difference was not evaluated since parent sample was not detected. Analytical spike was performed and met the QC requirement.

5. Matrix Spike/Matrix Spike Duplicate

Sample G024-08 was spiked. Recoveries were within QC limit. %RPD was above QC.

6. Sample Analysis

Sample analyses were performed within the QC requirements. All criteria were met with the aforementioned exception.

Samples were diluted at 20X due to matrix interference.

METHOD 7470A
DISSOLVED MERCURY BY COLD VAPOR

Client : TETRA TECH FW, INC.
Project : MFA, SITE 1, CTO 86
Batch No. : 046024

Matrix : WATER
Instrument ID : T1047

| SAMPLE ID | EMAX SAMPLE ID | RESULTS (ug/L) | DLF | MOIST | RL (ug/L) | MDI (ug/L) | Analysis DATE/TIME | Extraction DATE/TIME | LFID | CAL REF | PREP BATCH | Collection DATE/TIME | Received DATE/TIME |
|--------------|-------------------|-------------------|-----|-------|--------------|---------------|-----------------------|-------------------------|------------|------------|------------|-------------------------|-----------------------|
| MBK1W | HGG006MB | ND | 1 | NA | 2 | 1 | 07/13/0412:04 | 07/12/0413:00 | M47G007010 | M47G007008 | HGG006W | NA | 07/12/04 |
| LCS1W | HGG006HL | 5.05 | 1 | NA | 2 | 1 | 07/13/0412:07 | 07/12/0413:00 | M47G007011 | M47G007008 | HGG006W | NA | 07/12/04 |
| LCD1W | HGG006HC | 5.02 | 1 | NA | 2 | 1 | 07/13/0412:09 | 07/12/0413:00 | M47G007012 | M47G007008 | HGG006W | NA | 07/12/04 |
| 86-S1-029AS | G024-01A | 38 | 20 | NA | 4 | 2 | 07/13/0412:55 | 07/12/0413:00 | M47G007031 | M47G007020 | HGG006W | 07/06/04 | 07/08/04 |
| 86-S1-029 | G024-01 | ND | 20 | NA | 4 | 2 | 07/13/0412:14 | 07/12/0413:00 | M47G007014 | M47G007008 | HGG006W | 07/06/04 | 07/08/04 |
| 86-S1-029DL | G024-01T | ND | 100 | NA | 20 | 10 | 07/13/0412:16 | 07/12/0413:00 | M47G007015 | M47G007008 | HGG006W | 07/06/04 | 07/08/04 |
| 86-S1-028 | G024-02 | ND | 20 | NA | 4 | 2 | 07/13/0412:18 | 07/12/0413:00 | M47G007016 | M47G007008 | HGG006W | 07/06/04 | 07/08/04 |
| 86-S1-027 | G024-03 | ND | 20 | NA | 4 | 2 | 07/13/0412:21 | 07/12/0413:00 | M47G007017 | M47G007008 | HGG006W | 07/06/04 | 07/08/04 |
| 86-S1-026 | G024-04 | ND | 20 | NA | 4 | 2 | 07/13/0412:23 | 07/12/0413:00 | M47G007018 | M47G007008 | HGG006W | 07/06/04 | 07/08/04 |
| 86-S1-025 | G024-05 | ND | 20 | NA | 4 | 2 | 07/13/0412:25 | 07/12/0413:00 | M47G007019 | M47G007008 | HGG006W | 07/06/04 | 07/08/04 |
| 86-S1-024 | G024-06 | ND | 20 | NA | 4 | 2 | 07/13/0412:33 | 07/12/0413:00 | M47G007022 | M47G007020 | HGG006W | 07/06/04 | 07/08/04 |
| 86-S1-023 | G024-07 | ND | 20 | NA | 4 | 2 | 07/13/0412:36 | 07/12/0413:00 | M47G007023 | M47G007020 | HGG006W | 07/06/04 | 07/08/04 |
| 86-S1-022 | G024-08 | ND | 20 | NA | 4 | 2 | 07/13/0412:38 | 07/12/0413:00 | M47G007024 | M47G007020 | HGG006W | 07/06/04 | 07/08/04 |
| 86-S1-022MS | G024-08M | 4.1 | 20 | NA | 4 | 2 | 07/13/0414:04 | 07/12/0413:00 | M47G008010 | M47G008008 | HGG006W | 07/06/04 | 07/08/04 |
| 86-S1-022MSD | G024-08S | 5.22 | 20 | NA | 4 | 2 | 07/13/0414:06 | 07/12/0413:00 | M47G008011 | M47G008008 | HGG006W | 07/06/04 | 07/08/04 |
| 86-S1-020 | G024-09 | ND | 20 | NA | 4 | 2 | 07/13/0412:45 | 07/12/0413:00 | M47G007027 | M47G007020 | HGG006W | 07/07/04 | 07/08/04 |
| 86-S1-019 | G024-10 | ND | 20 | NA | 4 | 2 | 07/13/0412:47 | 07/12/0413:00 | M47G007028 | M47G007020 | HGG006W | 07/07/04 | 07/08/04 |
| 86-S1-018 | G024-11 | ND | 20 | NA | 4 | 2 | 07/13/0412:50 | 07/12/0413:00 | M47G007029 | M47G007020 | HGG006W | 07/07/04 | 07/08/04 |
| 86-S1-017 | G024-12 | ND | 20 | NA | 4 | 2 | 07/13/0412:52 | 07/12/0413:00 | M47G007030 | M47G007020 | HGG006W | 07/07/04 | 07/08/04 |

RL: Reporting Limit

7002

**Laboratory Data Consultants, Inc.
Data Validation Report**

Project/Site Name: Moffett Airfield, CTO 86
Collection Date: July 6 through July 7, 2004
LDC Report Date: August 10, 2004
Matrix: Water
Parameters: Semivolatiles
Validation Level: EPA Level III & IV
Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 04G024

Sample Identification

86-S1-029
86-S1-028
86-S1-027**
86-S1-026
86-S1-025
86-S1-024
86-S1-023**
86-S1-022
86-S1-020
86-S1-019**
86-S1-018
86-S1-017
86-S1-022MS
86-S1-022MSD

**Indicates sample underwent EPA Level IV review

Introduction

This data review covers 14 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8270C for Semivolatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XVI.

Samples indicated by a double asterisk on the front cover underwent a EPA Level IV review. A EPA Level III review was performed on all of the other samples. Raw data were not evaluated for the samples reviewed by Level III criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UU Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

The mean percent relative standard deviation (%RSD) for all compounds was less than or equal to 15.0% and less than or equal to 30.0% for selected individual compounds.

In the case where %RSD was greater than 15.0%, the laboratory used a calibration curve to evaluate the compound. All coefficients of determination (r^2) were greater than or equal to 0.990.

Average relative response factors (RRF) for all system performance check compounds (SPCCs) were within method criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

The mean percent difference (%D) between the initial calibration RRF and the continuing calibration RRF was less than or equal to 20.0% and less than or equal to 25.0% for individual compounds.

Initial calibration verification (ICV) percent differences (%D) were less than or equal to 20.0% for all compounds.

All of the continuing calibration RRF values for all system performance check compounds (SPCCs) were within method criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No semivolatile contaminants were found in the method blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XII. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XV. Overall Assessment

Data flags have been summarized at the end of the report.

XVI. Field Duplicates

Samples 86-S1-023** and 86-S1-022 and samples 86-S1-019** and 86-S1-018 were identified as field duplicates. No semivolatiles were detected in any of the samples.

XVII. Field Blanks

No field blanks were identified in this SDG.

Moffett Airfield, CTO 86

Semivolatiles - Data Qualification Summary - SDG 04G024

No Sample Data Qualified in this SDG

Moffett Airfield, CTO 86

Semivolatiles - Laboratory Blank Data Qualification Summary - SDG 04G024

No Sample Data Qualified in this SDG

**Laboratory Data Consultants, Inc.
Data Validation Report**

Project/Site Name: Moffett Airfield, CTO 86
Collection Date: July 6, 2004
LDC Report Date: August 10, 2004
Matrix: Water
Parameters: Dissolved Mercury
Validation Level: EPA Level III & IV
Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 04G024

Sample Identification

86-S1-029
86-S1-028
86-S1-027**
86-S1-026
86-S1-025
86-S1-024
86-S1-023**
86-S1-022
86-S1-020
86-S1-019**
86-S1-018
86-S1-017
86-S1-022MS
86-S1-022MSD

**Indicates sample underwent EPA Level IV review

Introduction

This data review covers 14 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 7470A for Dissolved Mercury.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (February 1994) as there are no current guidelines for the method stated above.

A table summarizing all data qualification flags is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from specified protocols or is of technical advisory nature.

Blanks are summarized in Section III.

Field duplicates are summarized in Section XIII.

Samples indicated by a double asterisk on the front cover underwent a EPA Level IV review. A EPA Level III review was performed on all of the other samples. Raw data were not evaluated for the samples reviewed by Level III criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

An initial calibration was performed.

The frequency and analysis criteria of the initial calibration verification (ICV) and continuing calibration verification (CCV) were met.

III. Blanks

Method blanks were reviewed for each matrix as applicable.

Data qualification by the initial, continuing and preparation blanks (ICB/CCB/PBs) was based on the maximum contaminant concentration in the ICB/CCB/PBs in the analysis of each analyte. No contaminant concentrations were found in the initial, continuing and preparation blanks.

IV. ICP Interference Check Sample (ICS) Analysis

ICP interference check sample was not required by the method.

V. Matrix Spike Analysis

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VI. Duplicate Sample Analysis

The laboratory has indicated that there were no duplicate (DUP) analyses specified for the samples in this SDG, and therefore duplicate analyses were not performed for this SDG.

VII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Internal Standards

ICP-MS was not utilized in this SDG.

IX. Furnace Atomic Absorption QC

Graphite furnace atomic absorption was not utilized in this SDG.

X. ICP Serial Dilution

ICP serial dilution was not required by the method.

XI. Sample Result Verification

All sample result verifications met validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XII. Overall Assessment of Data

Data flags have been summarized at the end of this report.

XIII. Field Duplicates

Samples 86-S1-023** and 86-S1-022 and samples 86-S1-020 and 86-S1-019** were identified as field duplicates. No dissolved mercury was detected in any of the samples.

XIV. Field Blanks

No field blanks were identified in this SDG.

Moffett Airfield, CTO 86

Dissolved Mercury - Data Qualification Summary - SDG 04G024

No Sample Data Qualified in this SDG

Moffett Airfield, CTO 86

Dissolved Mercury - Laboratory Blank Data Qualification Summary - SDG 04G024

No Sample Data Qualified in this SDG

AUGUST 2004

CHAIN-OF-CUSTODY RECORD

| | | | | | | | | | | | | | | | | | | |
|-----------------------------------------------------------------------------------------------------------------------|----------------|----------------------------------------------|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|--|--|--|----------|--------------|--------------------|--------------------------------------------------|-----------------------------------------------------------------------|--------------------------------------------------------------------------|--|--|
| PROJECT NAME Site 1 - R3/04 | | PURCHASE ORDER NO. 20848 - Task 28 | | ANALYSES REQUIRED <div style="display: flex; justify-content: space-between;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">epa 8210C - ext. List</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">epa 7140A - D. Merc</div> </div> | | | | | | | | | | LABORATORY NAME EMAX | | Project Information Section Do not submit to Laboratory | | |
| PROJECT LOCATION Morlett | | PROJECT NO. 1990-086E | | | | | | | | | | | | LABORATORY ID (FOR LABORATORY) 04H1160 | | | | |
| SAMPLER NAME D. Harrison | | SAMPLER SIGNATURE <i>[Signature]</i> | | | | | | | | | | | | | | | | |
| PROJECT CONTACT Lynn Jefferson | | AIRBILL NUMBER 847882738781 | | | | | | | | | | | | | | | | |
| SAMPLE ID | DATE COLLECTED | TIME COLLECTED | NO. OF CONTAINER | LEVEL 3 4 | T Y P E | T A B L E | | | | | COMMENTS | LOCATION | DEPTH START END | QC | | | | |
| 86-S1-030 | 8/19/01 | 1405 | 3 | X | W | day | XX | | | | | w1-1R | | lg | | | | |
| <div style="font-size: 48px; transform: rotate(-45deg); opacity: 0.5;"> <i>[Large diagonal X across table]</i> </div> | | | | | | | | | | | | | | | | | | |
| RELINQUISHED BY (Signature) <i>[Signature]</i> | | DATE 8/19/01 | RECEIVED BY (Signature) FLOX | | LABORATORY INSTRUCTIONS/COMMENTS D. Merc. was field filtered | | | | | | | | | | SAMPLING COMMENT: Site 1 R3/04 Baseline | | | |
| COMPANY FHE | | TIME 1500 | COMPANY | | | | | | | | | | | | | | | |
| RELINQUISHED BY (Signature) | | DATE | RECEIVED BY (Signature) | | COMPOSITE DESCRIPTION | | | | | | | | | | | | | |
| COMPANY | | TIME | COMPANY | | | | | | | | | | | | | | | |
| RELINQUISHED BY (Signature) | | DATE | RECEIVED BY (Signature) | | SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY) | | | | | | | | | | | | | |
| COMPANY | | TIME | COMPANY | | | | | | | | | | | | | | | |
| | | | | | | TEMPERATURE _____ SAMPLE CONDITION: <input type="checkbox"/> INTACT <input type="checkbox"/> BROKEN COOLER SEAL: <input type="checkbox"/> INTACT <input type="checkbox"/> BROKEN | | | | | | | | | | | | |

NUMBER **05334**

CHAIN-OF-CUSTODY RECORD

| PROJECT NAME Site 1 - R3/04 | | PURCHASE ORDER NO. 20848-Task28 | | ANALYSES REQUIRED | | | | | | | | | | LABORATORY NAME EMAX | | Project Information Section Do not submit to Laboratory | | | | | |
|---------------------------------------------------|----------------|-------------------------------------------|-----------------------------------------------|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------|-------|-----|--|--|--|--|----------------------------------------------------|-----------------------------------------------------------------------|------------------------------------------------------------------|--|----------|-------|-----|----|
| PROJECT LOCATION Moffett | | PROJECT NO. 1990.086E | | | | | | | | | | | | LABORATORY ID (FOR LABORATORY) 84H160 | | | | | | | |
| SAMPLER NAME Duane Harrison | | SAMPLER SIGNATURE <i>[Signature]</i> | | | | | | | | | | | | LABORATORY COMMENTS | | | | | | | |
| PROJECT CONTACT Lynn Jefferson | | AIRBILL NUMBER 847582758781 | | | | | | | | | | | | | | | | | | | |
| SAMPLE ID | DATE COLLECTED | TIME COLLECTED | NO. OF CONTAINER | LEVEL | | TYPE | T A T | | | | | | | | | | | LOCATION | DEPTH | | QC |
| | | | | 3 | 4 | | | START | END | | | | | | | | | | | | |
| 86-S1-031 | 8/18/04 | 1018 | 3 | X | | W | 10 day | X | X | | | | | | | | | W1-15 | | Reg | |
| 86-S1-032 | 8/18/04 | 1105 | 3 | X | | W | 10 day | X | X | | | | | | | | | W1-19 | | Reg | |
| 86-S1-034 | 8/18/04 | 1145 | 3 | X | | W | 10 day | X | X | | | | | | | | | W1-14 | | Reg | |
| 86-S1-035 | 8/18/04 | 1415 | 3 | X | | W | 10 day | X | X | | | | | | | | | W1-12R | | Reg | |
| 86-S1-036 | 8/18/04 | 1425 | 3 | | X | W | 10 day | X | X | | | | | | | | | W1-12R | | FD | |
| 86-S1-037 | 8/19/04 | 0848 | 9 | X | | W | 10 day | X | X | | | | | | Run MS/MSD | | | W1-22 | | Reg | |
| 86-S1-038 | 8/19/04 | 0935 | 3 | X | | W | 10 day | X | X | | | | | | | | | W1-5 | | Reg | |
| 86-S1-039 | 8/19/04 | 0945 | 3 | | X | W | 10 day | X | X | | | | | | | | | W1-5 | | D | |
| 86-S1-040 | 8/19/04 | 1020 | 3 | X | | W | 10 day | X | X | | | | | | | | | W1-8 | | Reg | |
| 86-S1-041 | 8/19/04 | 1120 | 3 | | X | W | 10 day | X | X | | | | | | | | | W1-24 | | Reg | |
| 86-S1-042 | 8/19/04 | 1305 | 3 | X | | W | 10 day | X | X | | | | | | | | | W1-16 | | Reg | |
| RELINQUISHED BY (Signature) <i>[Signature]</i> | | DATE 8/19/04 | RECEIVED BY (Signature) <i>[Signature]</i> | | LABORATORY INSTRUCTIONS/COMMENTS D. Merc. Samples were field filtered | | | | | | | | | | SAMPLING COMMENT: Site 1 R3/04 Baseline | | | | | | |
| COMPANY FWR | | TIME 7500 | COMPANY | | | | | | | | | | | | | | | | | | |
| RELINQUISHED BY (Signature) | | DATE | RECEIVED BY (Signature) | | COMPOSITE DESCRIPTION | | | | | | | | | | | | | | | | |
| COMPANY | | TIME | COMPANY | | | | | | | | | | | | | | | | | | |
| RELINQUISHED BY (Signature) | | DATE | RECEIVED BY (Signature) | | SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY) | | | | | | | | | | | | | | | | |
| COMPANY | | TIME | COMPANY | | TEMPERATURE: _____ SAMPLE CONDITION: <input type="checkbox"/> INTACT <input type="checkbox"/> BROKEN COOLER SEAL: <input type="checkbox"/> INTACT <input type="checkbox"/> BROKEN | | | | | | | | | | | | | | | | |



LABORATORIES, INC.

1835 W. 205th Street

Torrance, CA 90501

Tel: (310) 618-8889

Fax: (310) 618-0818

Date: 09-13-2004

EMAX Batch No.: 04H160

Attn: Lynn Jefferson

Tetra Tech FW, Inc.

1940 E Deere Ave, Suite 200

Santa Ana CA 92705

Subject: Laboratory Report

Project: MFA, Site 1, CTO 86

Enclosed is the Laboratory report for samples received on
08/20/04. The data reported include :

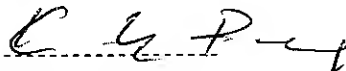
| Sample ID | Control # | Col Date | Matrix | Analysis |
|-----------|-----------|----------|--------|----------------------------------------------------|
| 86-S1-031 | H160-01 | 08/18/04 | WATER | MERCURY DISSOLVED SEMIVOLATILE ORGANICS BY GCMS |
| 86-S1-032 | H160-02 | 08/18/04 | WATER | MERCURY DISSOLVED SEMIVOLATILE ORGANICS BY GCMS |
| 86-S1-034 | H160-03 | 08/18/04 | WATER | MERCURY DISSOLVED SEMIVOLATILE ORGANICS BY GCMS |
| 86-S1-035 | H160-04 | 08/18/04 | WATER | MERCURY DISSOLVED SEMIVOLATILE ORGANICS BY GCMS |
| 86-S1-036 | H160-05 | 08/18/04 | WATER | MERCURY DISSOLVED SEMIVOLATILE ORGANICS BY GCMS |
| 86-S1-037 | H160-06 | 08/19/04 | WATER | MERCURY DISSOLVED SEMIVOLATILE ORGANICS BY GCMS |
| 86-S1-038 | H160-07 | 08/19/04 | WATER | MERCURY DISSOLVED SEMIVOLATILE ORGANICS BY GCMS |
| 86-S1-039 | H160-08 | 08/19/04 | WATER | MERCURY DISSOLVED SEMIVOLATILE ORGANICS BY GCMS |
| 86-S1-040 | H160-09 | 08/19/04 | WATER | MERCURY DISSOLVED SEMIVOLATILE ORGANICS BY GCMS |
| 86-S1-041 | H160-10 | 08/19/04 | WATER | MERCURY DISSOLVED |

| Sample ID | Control # | Col Date | Matrix | Analysis |
|--------------|-----------|----------|--------|----------------------------------------------------|
| 86-S1-042 | H160-11 | 08/19/04 | WATER | SEMIVOLATILE ORGANICS BY GCMS MERCURY DISSOLVED |
| 86-S1-030 | H160-12 | 08/19/04 | WATER | SEMIVOLATILE ORGANICS BY GCMS MERCURY DISSOLVED |
| 86-S1-037MS | H160-06M | 08/19/04 | WATER | SEMIVOLATILE ORGANICS BY GCMS MERCURY DISSOLVED |
| 86-S1-037MSD | H160-06S | 08/19/04 | WATER | SEMIVOLATILE ORGANICS BY GCMS MERCURY DISSOLVED |

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning these results.

Sincerely yours,



Kam Y. Pang, Ph.D.
Laboratory Director

CASE NARRATIVE

CLIENT: TETRA TECH FW, INC.

PROJECT: MFA, SITE 1, CTO 86

SDG: 04H160

SW 3520C/8270C SEMI VOLATILE ORGANICS BY GC/MS

Twelve (12) water samples were received on 08/20/04 for Semi Volatile Organic analysis by Method 3520C/8270C in accordance with USEPA SW846, 3rd ed.

1. Holding Time

Analytical holding time was met.

2. Tuning and Calibration

Tuning and calibration were carried out at 12-hour interval. All QC requirements were met.

3. Method Blank

Method blank was free of contamination at the reporting limit.

4. Surrogate Recovery

Recoveries were within QC limit.

5. Lab Control Sample/Lab Control Sample Duplicate

Recoveries were within QC limit.

6. Matrix Spike/Matrix Spike Duplicate

Sample H160-06 was spiked. All recoveries were within QC limit. RPD of 4-Nitrophenol was above QC.

7. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criteria were met with the aforementioned exception.

Bis(2-Ethylhexyl)Phthalate found in sample H160-08 was from lab contamination which was not systematic since method blank, LCS/LCSD and the rest of the samples were devoid of this analyte. Furthermore, re-extraction, albeit out of holding time was free of this analyte. 4-Nitrophenol in MSD of H160-06 was manually reintegrated to correct for retention time shift.

SW 3520C/8270C
 SEMI VOLATILE ORGANICS BY GC/MS

| | |
|------------------------------|--------------------------------|
| Client : TETRA TECH FW INC. | Date Collected: 08/18/04 |
| Project : MFA SITE 1, CTO 86 | Date Received: 08/20/04 |
| Batch No. : 04H160 | Date Extracted: 08/25/04 16:00 |
| Sample ID: 86-S1-031 | Date Analyzed: 09/02/04 22:47 |
| Lab Samp ID: H160-01 | Dilution Factor: .94 |
| Lab File ID: RIX055 | Matrix: WATER |
| Ext Btch ID: SVH040W | % Moisture: NA |
| Calib. Ref.: RIX007 | Instrument ID: T-042 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 2,4,5-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4,6-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DIMETHYLPHENOL | ND | 9.4 | 4.7 |
| 2,4-DINITROPHENOL | ND | 19 | 9.4 |
| 2,4-DINITROTOLUENE | ND | 19 | 5.6 |
| 2,6-DINITROTOLUENE | ND | 19 | 5.6 |
| 2-CHLORONAPHTHALENE | ND | 9.4 | 4.7 |
| 2-CHLOROPHENOL | ND | 9.4 | 4.7 |
| 2-METHYLNAPHTHALENE | ND | 9.4 | 4.7 |
| 2-METHYLPHENOL | ND | 9.4 | 4.7 |
| 2-NITROANILINE | ND | 19 | 5.6 |
| 2-NITROPHENOL | ND | 9.4 | 4.7 |
| 3,3'-DICHLOROBENZIDINE | ND | 9.4 | 4.7 |
| 3-NITROANILINE | ND | 9.4 | 4.7 |
| 4,6-DINITRO-2-METHYLPHENOL | ND | 19 | 9.4 |
| 4-BROMOPHENYL-PHENYL ETHER | ND | 19 | 6.6 |
| 4-CHLORO-3-METHYLPHENOL | ND | 9.4 | 4.7 |
| 4-CHLOROANILINE | ND | 9.4 | 4.7 |
| 4-CHLOROPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-METHYLPHENOL (1) | ND | 9.4 | 4.7 |
| 4-NITROANILINE | ND | 9.4 | 4.7 |
| 4-NITROPHENOL | ND | 19 | 4.7 |
| ACENAPHTHENE | ND | 9.4 | 4.7 |
| ACENAPHTHYLENE | ND | 9.4 | 4.7 |
| ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)PYRENE | ND | 9.4 | 4.7 |
| BENZO(B)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(K)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(G,H,I)PERYLENE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHOXY)METHANE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-CHLOROISOPROPYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-ETHYLHEXYL)PHTHALATE | ND | 19 | 9.4 |
| BUTYLBENZYLPHTHALATE | ND | 9.4 | 4.7 |
| CHRYSENE | ND | 9.4 | 4.7 |
| DI-N-BUTYLPHTHALATE | ND | 9.4 | 4.7 |
| DI-N-OCTYLPHTHALATE | ND | 9.4 | 4.7 |
| DIBENZO(A,H)ANTHRACENE | ND | 9.4 | 4.7 |
| DIBENZOFURAN | ND | 19 | 5.6 |
| DIETHYLPHTHALATE | ND | 19 | 4.7 |
| DIMETHYLPHTHALATE | ND | 9.4 | 4.7 |
| FLUORANTHENE | ND | 9.4 | 4.7 |
| FLUORENE | ND | 19 | 5.6 |
| HEXACHLOROBENZENE | ND | 9.4 | 4.7 |
| HEXACHLOROCYCLOPENTADIENE | ND | 9.4 | 4.7 |
| HEXACHLOROETHANE | ND | 9.4 | 4.7 |
| INDENO(1,2,3-CD)PYRENE | ND | 9.4 | 4.7 |
| ISOPHORONE | ND | 9.4 | 4.7 |
| N-NITROSO-DI-N-PROPYLAMINE | ND | 9.4 | 4.7 |
| N-NITROSODIPHENYLAMINE (2) | ND | 9.4 | 4.7 |
| NITROBENZENE | ND | 9.4 | 4.7 |
| PENTACHLOROPHENOL | ND | 19 | 9.4 |
| PHENANTHRENE | ND | 19 | 5.6 |
| PHENOL | ND | 9.4 | 4.7 |
| PYRENE | ND | 9.4 | 4.7 |
| 1,1'-BIPHENYL | ND | 9.4 | 4.7 |
| ACETOPHENONE | ND | 9.4 | 2.3 |
| ATRAZINE | ND | 19 | 9.4 |
| BENZALDEHYDE | ND | 9.4 | 4.7 |
| CAPROLACTAM | ND | 9.4 | 4.7 |
| CARBAZOLE | ND | 9.4 | 4.7 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| 2,4,6-TRIBROMOPHENOL | 74 | 25-134 |
| 2-FLUOROBIPHENYL | 60 | 43-125 |
| 2-FLUOROPHENOL | 45 | 25-125 |
| NITROBENZENE-D5 | 55 | 32-125 |
| PHENOL-D5 | 54 | 25-125 |
| TERPHENYL-D14 | 92 | 42-126 |

RL: Reporting Limit

(1): Cannot be separated from 3-Methylphenol

(2): Cannot be separated from Diphenylamine

SW 3520C/8270C
 SEMI VOLATILE ORGANICS BY GC/MS

| | |
|------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 08/18/04 |
| Project : MFA SITE 1, CTO 86 | Date Received: 08/20/04 |
| Batch No. : 04H160 | Date Extracted: 08/25/04 16:00 |
| Sample ID: 86-S1-032 | Date Analyzed: 09/02/04 23:22 |
| Lab Samp ID: H160-02 | Dilution Factor: 94 |
| Lab File ID: RIX056 | Matrix: WATER |
| Ext Btch ID: SVH040W | % Moisture: NA |
| Calib. Ref.: RIX007 | Instrument ID: T-042 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 2,4,5-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4,6-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DIMETHYLPHENOL | ND | 9.4 | 4.7 |
| 2,4-DINITROPHENOL | ND | 19 | 9.4 |
| 2,4-DINITROTOLUENE | ND | 19 | 9.4 |
| 2,6-DINITROTOLUENE | ND | 19 | 5.6 |
| 2-CHLORONAPHTHALENE | ND | 9.4 | 4.7 |
| 2-CHLOROPHENOL | ND | 9.4 | 4.7 |
| 2-METHYLNAPHTHALENE | ND | 9.4 | 4.7 |
| 2-METHYLPHENOL | ND | 9.4 | 4.7 |
| 2-NITROANILINE | ND | 19 | 5.6 |
| 2-NITROPHENOL | ND | 9.4 | 4.7 |
| 3,3'-DICHLOROBENZIDINE | ND | 9.4 | 4.7 |
| 3-NITROANILINE | ND | 9.4 | 4.7 |
| 4,6-DINITRO-2-METHYLPHENOL | ND | 19 | 9.4 |
| 4-BROMOPHENYL-PHENYL ETHER | ND | 19 | 6.6 |
| 4-CHLORO-3-METHYLPHENOL | ND | 9.4 | 4.7 |
| 4-CHLOROANILINE | ND | 9.4 | 4.7 |
| 4-CHLOROPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-METHYLPHENOL (1) | ND | 9.4 | 4.7 |
| 4-NITROANILINE | ND | 19 | 4.7 |
| 4-NITROPHENOL | ND | 9.4 | 4.7 |
| ACENAPHTHENE | ND | 9.4 | 4.7 |
| ACENAPHTHYLENE | ND | 9.4 | 4.7 |
| ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)PYRENE | ND | 9.4 | 4.7 |
| BENZO(B)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(K)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(G,H,I)PERYLENE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHOXY)METHANE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-CHLOROISOPROPYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-ETHYLHEXYL)PHTHALATE | ND | 19 | 9.4 |
| BUTYLBENZYLPHTHALATE | ND | 9.4 | 4.7 |
| CHRYSENE | ND | 9.4 | 4.7 |
| DI-N-BUTYLPHTHALATE | ND | 9.4 | 4.7 |
| DI-N-OCTYLPHTHALATE | ND | 9.4 | 4.7 |
| DIBENZO(A,H)ANTHRACENE | ND | 9.4 | 4.7 |
| DIBENZOFURAN | ND | 9.4 | 4.7 |
| DIETHYLPHTHALATE | ND | 19 | 5.6 |
| DIMETHYLPHTHALATE | ND | 19 | 4.7 |
| FLUORANTHENE | ND | 9.4 | 4.7 |
| FLUORENE | ND | 9.4 | 4.7 |
| HEXACHLOROBENZENE | ND | 19 | 5.6 |
| HEXACHLOROCYCLOPENTADIENE | ND | 9.4 | 4.7 |
| HEXACHLOROETHANE | ND | 9.4 | 4.7 |
| INDENO(1,2,3-CD)PYRENE | ND | 9.4 | 4.7 |
| ISOPHORONE | ND | 9.4 | 4.7 |
| N-NITROSO-DI-N-PROPYLAMINE | ND | 9.4 | 4.7 |
| N-NITROSODIPHENYLAMINE (2) | ND | 9.4 | 4.7 |
| NITROBENZENE | ND | 9.4 | 4.7 |
| PENTACHLOROPHENOL | ND | 19 | 9.4 |
| PHENANTHRENE | ND | 19 | 5.6 |
| PHENOL | ND | 9.4 | 4.7 |
| PYRENE | ND | 9.4 | 4.7 |
| 1,1'-BIPHENYL | ND | 9.4 | 4.7 |
| ACETOPHENONE | ND | 19 | 2.3 |
| ATRAZINE | ND | 9.4 | 9.4 |
| BENZALDEHYDE | ND | 9.4 | 4.7 |
| CAPROLACTAM | ND | 9.4 | 4.7 |
| CARBAZOLE | ND | 9.4 | 4.7 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| 2,4,6-TRIBROMOPHENOL | 69 | 25-134 |
| 2-FLUOROBIPHENYL | 62 | 43-125 |
| 2-FLUOROPHENOL | 52 | 25-125 |
| NITROBENZENE-D5 | 61 | 36-125 |
| PHENOL-D5 | 57 | 25-125 |
| TERPHENYL-D14 | 86 | 42-126 |

RL: Reporting Limit

(1): Cannot be separated from 3-Methylphenol

(2): Cannot be separated from Diphenylamine

SW 3520C/8270C
 SEMI VOLATILE ORGANICS BY GC/MS

| | |
|------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 08/18/04 |
| Project : MFA SITE 1, CTO 86 | Date Received: 08/20/04 |
| Batch No. : 04H160 | Date Extracted: 08/25/04 16:00 |
| Sample ID: 86-S1-034 | Date Analyzed: 09/02/04 23:57 |
| Lab Samp ID: H160-03 | Dilution Factor: .94 |
| Lab File ID: RIX057 | Matrix : WATER |
| Ext Btch ID: SVH040W | % Moisture : NA |
| Calib. Ref.: RIX007 | Instrument ID : T-042 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 2,4,5-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4,6-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DIMETHYLPHENOL | ND | 9.4 | 4.7 |
| 2,4-DINITROPHENOL | ND | 19 | 9.4 |
| 2,4-DINITROTOLUENE | ND | 19 | 9.4 |
| 2,6-DINITROTOLUENE | ND | 19 | 5.6 |
| 2-CHLORONAPHTHALENE | ND | 9.4 | 4.7 |
| 2-CHLOROPHENOL | ND | 9.4 | 4.7 |
| 2-METHYLNAPHTHALENE | ND | 9.4 | 4.7 |
| 2-METHYLPHENOL | ND | 9.4 | 4.7 |
| 2-NITROANILINE | ND | 19 | 5.6 |
| 2-NITROPHENOL | ND | 9.4 | 4.7 |
| 3,3'-DICHLOROBENZIDINE | ND | 9.4 | 4.7 |
| 3-NITROANILINE | ND | 9.4 | 4.7 |
| 4,6-DINITRO-2-METHYLPHENOL | ND | 19 | 9.4 |
| 4-BROMOPHENYL-PHENYL ETHER | ND | 19 | 6.6 |
| 4-CHLORO-3-METHYLPHENOL | ND | 9.4 | 4.7 |
| 4-CHLOROANILINE | ND | 9.4 | 4.7 |
| 4-CHLOROPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-METHYLPHENOL (1) | ND | 9.4 | 4.7 |
| 4-NITROANILINE | ND | 19 | 4.7 |
| 4-NITROPHENOL | ND | 9.4 | 4.7 |
| ACENAPHTHENE | ND | 9.4 | 4.7 |
| ACENAPHTHYLENE | ND | 9.4 | 4.7 |
| ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)PYRENE | ND | 9.4 | 4.7 |
| BENZO(B)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(K)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(G,H,I)PERYLENE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHOXY)METHANE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-CHLOROISOPROPYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-ETHYLHEXYL)PHTHALATE | ND | 19 | 9.4 |
| BUTYLBENZYLPHTHALATE | ND | 9.4 | 4.7 |
| CHRYSENE | ND | 9.4 | 4.7 |
| DI-N-BUTYLPHTHALATE | ND | 9.4 | 4.7 |
| DI-N-OCTYLPHTHALATE | ND | 9.4 | 4.7 |
| DIBENZO(A,H)ANTHRACENE | ND | 9.4 | 4.7 |
| DIBENZO(A,H)ANTHRACENE | ND | 19 | 5.6 |
| DIETHYLPHTHALATE | ND | 19 | 4.7 |
| DIMETHYLPHTHALATE | ND | 9.4 | 4.7 |
| FLUORANTHENE | ND | 9.4 | 4.7 |
| FLUORENE | ND | 9.4 | 4.7 |
| HEXACHLOROBENZENE | ND | 19 | 5.6 |
| HEXACHLOROCYCLOPENTADIENE | ND | 9.4 | 4.7 |
| HEXACHLOROETHANE | ND | 9.4 | 4.7 |
| INDENO(1,2,3-CD)PYRENE | ND | 9.4 | 4.7 |
| ISOPHORONE | ND | 9.4 | 4.7 |
| N-NITROSO-DI-N-PROPYLAMINE | ND | 9.4 | 4.7 |
| N-NITROSDIPHENYLAMINE (2) | ND | 9.4 | 4.7 |
| NITROBENZENE | ND | 9.4 | 4.7 |
| PENTACHLOROPHENOL | ND | 19 | 5.6 |
| PHENANTHRENE | ND | 9.4 | 4.7 |
| PHENOL | ND | 9.4 | 4.7 |
| PYRENE | ND | 9.4 | 4.7 |
| 1,1'-BIPHENYL | ND | 9.4 | 2.3 |
| ACETOPHENONE | ND | 19 | 9.4 |
| ATRAZINE | ND | 9.4 | 4.7 |
| BENZALDEHYDE | ND | 9.4 | 4.7 |
| CAPROLACTAM | ND | 9.4 | 4.7 |
| CARBAZOLE | ND | 9.4 | 4.7 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| 2,4,6-TRIBROMOPHENOL | 68 | 25-134 |
| 2-FLUOROBIPHENYL | 65 | 43-125 |
| 2-FLUOROPHENOL | 53 | 25-125 |
| NITROBENZENE-D5 | 60 | 25-125 |
| PHENOL-D5 | 60 | 25-125 |
| TERPHENYL-D14 | 84 | 42-126 |

RL: Reporting Limit
 (1): Cannot be separated from 3-Methylphenol
 (2): Cannot be separated from Diphenylamine

SW 3520C/8270C
 SEMI VOLATILE ORGANICS BY GC/MS

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=====
Client      : TETRA TECH FW, INC.      Date Collected: 08/18/04
Project     : MFA SITE 1, CTO 86      Date Received: 08/20/04
Batch No.   : 04H160                  Date Extracted: 08/23/04 16:00
Sample ID   : 86-S1-035               Date Analyzed: 09/03/04 00:32
Lab Samp ID : H160-04                 Dilution Factor: .94
Lab File ID : RIX058                  Matrix: WATER
Ext Btch ID : SVH040W                 % Moisture: NA
Calib. Ref.: RIX007                   Instrument ID: T-042
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| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 2,4,5-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4,6-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DIMETHYLPHENOL | ND | 9.4 | 4.7 |
| 2,4-DINITROPHENOL | ND | 19 | 9.4 |
| 2,4-DINITROTOLUENE | ND | 19 | 5.6 |
| 2,6-DINITROTOLUENE | ND | 9.4 | 2.9 |
| 2-CHLORONAPHTHALENE | ND | 9.4 | 4.7 |
| 2-CHLOROPHENOL | ND | 9.4 | 4.7 |
| 2-METHYLNAPHTHALENE | ND | 9.4 | 4.7 |
| 2-METHYLPHENOL | ND | 19 | 5.6 |
| 2-NITROANILINE | ND | 9.4 | 4.7 |
| 2-NITROPHENOL | ND | 9.4 | 4.7 |
| 3,3'-DICHLOROBENZIDINE | ND | 9.4 | 4.7 |
| 3-NITROANILINE | ND | 19 | 9.4 |
| 4,6-DINITRO-2-METHYLPHENOL | ND | 19 | 6.6 |
| 4-BROMOPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-CHLORO-3-METHYLPHENOL | ND | 9.4 | 4.7 |
| 4-CHLOROANILINE | ND | 9.4 | 4.7 |
| 4-CHLOROPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-METHYLPHENOL (1) | ND | 19 | 4.7 |
| 4-NITROANILINE | ND | 9.4 | 4.7 |
| 4-NITROPHENOL | ND | 9.4 | 4.7 |
| ACENAPHTHENE | ND | 9.4 | 4.7 |
| ACENAPHTHYLENE | ND | 9.4 | 4.7 |
| ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)PYRENE | ND | 9.4 | 4.7 |
| BENZO(B)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(K)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(G,H,I)PERYLENE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHOXY)METHANE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-CHLOROISOPROPYL)ETHER | ND | 19 | 9.4 |
| BIS(2-ETHYLHEXYL)PHTHALATE | ND | 9.4 | 4.7 |
| BUTYLBENZYLPHTHALATE | ND | 9.4 | 4.7 |
| CHRYSENE | ND | 9.4 | 4.7 |
| DI-N-BUTYLPHTHALATE | ND | 9.4 | 4.7 |
| DI-N-OCTYLPHTHALATE | ND | 9.4 | 4.7 |
| DIBENZO(A,H)ANTHRACENE | ND | 9.4 | 4.7 |
| DIBENZOFURAN | ND | 19 | 5.6 |
| DIETHYLPHTHALATE | ND | 9.4 | 4.7 |
| DIMETHYLPHTHALATE | ND | 9.4 | 4.7 |
| FLUORANTHENE | ND | 9.4 | 4.7 |
| FLUORENE | ND | 19 | 5.6 |
| HEXACHLOROBENZENE | ND | 9.4 | 4.7 |
| HEXACHLOROCYCLOPENTADIENE | ND | 9.4 | 4.7 |
| HEXACHLOROETHANE | ND | 9.4 | 4.7 |
| INDENO(1,2,3-CD)PYRENE | ND | 9.4 | 4.7 |
| ISOPHORONE | ND | 9.4 | 4.7 |
| N-NITROSO-DI-N-PROPYLAMINE | ND | 9.4 | 4.7 |
| N-NITROSODIPHENYLAMINE (2) | ND | 9.4 | 4.7 |
| NITROBENZENE | ND | 19 | 9.4 |
| PENTACHLOROPHENOL | ND | 19 | 5.6 |
| PHENANTHRENE | ND | 9.4 | 4.7 |
| PHENOL | ND | 9.4 | 4.7 |
| PYRENE | ND | 9.4 | 4.7 |
| 1,1'-BIPHENYL | ND | 9.4 | 2.3 |
| ACETOPHENONE | ND | 19 | 9.4 |
| ATRAZINE | ND | 9.4 | 4.7 |
| BENZALDEHYDE | ND | 9.4 | 4.7 |
| CAPROLACTAM | ND | 9.4 | 4.7 |
| CARBAZOLE | ND | 9.4 | 4.7 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| 2,4,6-TRIBROMOPHENOL | 67 | 25-134 |
| 2-FLUOROBIPHENYL | 50 | 43-125 |
| 2-FLUOROPHENOL | 40 | 25-125 |
| NITROBENZENE-D5 | 48 | 36-125 |
| PHENOL-D5 | 45 | 25-125 |
| TERPHENYL-D14 | 87 | 42-126 |

RL: Reporting Limit
 (1): Cannot be separated from 3-Methylphenol
 (2): Cannot be separated from Diphenylamine

SW 3520C/8270C
 SEMI VOLATILE ORGANICS BY GC/MS

| | |
|------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 08/18/04 |
| Project : MFA SITE 1, CTO 86 | Date Received: 08/20/04 |
| Batch No. : 04H160 | Date Extracted: 08/25/04 16:00 |
| Sample ID: 86-S1-036 | Date Analyzed: 09/03/04 01:08 |
| Lab Samp ID: H160-05 | Dilution Factor: .94 |
| Lab File ID: RIX059 | Matrix: WATER |
| Ext Btch ID: SVH040W | % Moisture: NA |
| Calib. Ref.: RIX007 | Instrument ID: T-D42 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 2,4,5-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4,6-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DIMETHYLPHENOL | ND | 9.4 | 4.7 |
| 2,4-DINITROPHENOL | ND | 19 | 9.4 |
| 2,4-DINITROTOLUENE | ND | 19 | 9.4 |
| 2,6-DINITROTOLUENE | ND | 19 | 5.6 |
| 2-CHLORONAPHTHALENE | ND | 9.4 | 4.7 |
| 2-CHLOROPHENOL | ND | 9.4 | 4.7 |
| 2-METHYLNAPHTHALENE | ND | 9.4 | 4.7 |
| 2-METHYLPHENOL | ND | 9.4 | 4.7 |
| 2-NITROANILINE | ND | 19 | 5.6 |
| 2-NITROPHENOL | ND | 9.4 | 4.7 |
| 3,3'-DICHLOROBENZIDINE | ND | 9.4 | 4.7 |
| 3-NITROANILINE | ND | 9.4 | 4.7 |
| 4,6-DINITRO-2-METHYLPHENOL | ND | 19 | 9.4 |
| 4-BROMOPHENYL-PHENYL ETHER | ND | 19 | 6.6 |
| 4-CHLORO-3-METHYLPHENOL | ND | 9.4 | 4.7 |
| 4-CHLORODANILINE | ND | 9.4 | 4.7 |
| 4-CHLOROPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-METHYLPHENOL (1) | ND | 9.4 | 4.7 |
| 4-NITROANILINE | ND | 19 | 4.7 |
| 4-NITROPHENOL | ND | 9.4 | 4.7 |
| ACENAPHTHENE | ND | 9.4 | 4.7 |
| ACENAPHTHYLENE | ND | 9.4 | 4.7 |
| ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)PYRENE | ND | 9.4 | 4.7 |
| BENZO(B)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(K)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(G,H,I)PERYLENE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHOXY)METHANE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-CHLOROISOPROPYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-ETHYLHEXYL)PHTHALATE | ND | 19 | 9.4 |
| BUTYLBENZYLPHTHALATE | ND | 9.4 | 4.7 |
| CHRYSENE | ND | 9.4 | 4.7 |
| DI-N-BUTYLPHTHALATE | ND | 9.4 | 4.7 |
| DI-N-OCTYLPHTHALATE | ND | 9.4 | 4.7 |
| DIBENZO(A,H)ANTHRACENE | ND | 9.4 | 4.7 |
| DIBENZOFURAN | ND | 19 | 5.6 |
| DIMETHYLPHTHALATE | ND | 19 | 4.7 |
| FLUORANTHENE | ND | 9.4 | 4.7 |
| FLUORENE | ND | 9.4 | 4.7 |
| HEXACHLOROBENZENE | ND | 19 | 5.6 |
| HEXACHLOROCYCLOPENTADIENE | ND | 9.4 | 4.7 |
| HEXACHLOROETHANE | ND | 9.4 | 4.7 |
| INDENO(1,2,3-CD)PYRENE | ND | 9.4 | 4.7 |
| ISOPHORDNE | ND | 9.4 | 4.7 |
| N-NITROSO-DI-N-PROPYLAMINE | ND | 9.4 | 4.7 |
| N-NITROSODIPHENYLAMINE (2) | ND | 9.4 | 4.7 |
| NITROBENZENE | ND | 9.4 | 4.7 |
| PENTACHLOROPHENOL | ND | 19 | 5.6 |
| PHENANTHRENE | ND | 9.4 | 4.7 |
| PHENOL | ND | 9.4 | 4.7 |
| PYRENE | ND | 9.4 | 4.7 |
| 1,1'-BIPHENYL | ND | 9.4 | 4.7 |
| ACETOPHENONE | ND | 9.4 | 2.3 |
| ATRAZINE | ND | 19 | 9.4 |
| BENZALDEHYDE | ND | 9.4 | 4.7 |
| CAPROLACTAM | ND | 9.4 | 4.7 |
| CARBAZOLE | ND | 9.4 | 4.7 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| 2,4,6-TRIBROMOPHENOL | 52 | 25-134 |
| 2-FLUOROBIPHENYL | 35* | 23-125 |
| 2-FLUOROPHENOL | 30 | 25-125 |
| NITROBENZENE-D5 | 34 | 25-125 |
| PHENOL-D5 | 33 | 25-125 |
| TERPHENYL-D14 | 84 | 42-126 |

RL: Reporting Limit

(1): Cannot be separated from 3-Methylphenol

(2): Cannot be separated from Diphenylamine

SW 3520C/8270C
 SEMI VOLATILE ORGANICS BY GC/MS

| | |
|------------------------------|--------------------------------|
| Client : TETRA TECH FW INC. | Date Collected: 08/19/04 |
| Project : MFA SITE 1, CTO 86 | Date Received: 08/20/04 |
| Batch No. : 04H160 | Date Extracted: 08/25/04 16:00 |
| Sample ID: 86-S1-037 | Date Analyzed: 09/02/04 21:01 |
| Lab Samp ID: H160-06 | Dilution Factor: .94 |
| Lab File ID: R1X052 | Matrix: WATER |
| Ext Btch ID: SVH040W | % Moisture: NA |
| Calib. Ref.: R1X007 | Instrument ID: T-042 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 2,4,5-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4,6-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DIMETHYLPHENOL | ND | 9.4 | 4.7 |
| 2,4-DINITROPHENOL | ND | 19 | 9.4 |
| 2,4-DINITROTOLUENE | ND | 19 | 5.6 |
| 2,6-DINITROTOLUENE | ND | 19 | 5.6 |
| 2-CHLORONAPHTHALENE | ND | 9.4 | 4.7 |
| 2-CHLOROPHENOL | ND | 9.4 | 4.7 |
| 2-METHYLNAPHTHALENE | ND | 9.4 | 4.7 |
| 2-METHYLPHENOL | ND | 19 | 5.6 |
| 2-NITROANILINE | ND | 9.4 | 4.7 |
| 2-NITROPHENOL | ND | 9.4 | 4.7 |
| 3,5-DICHLOROBENZIDINE | ND | 9.4 | 4.7 |
| 3-NITROANILINE | ND | 9.4 | 4.7 |
| 4,6-DINITRO-2-METHYLPHENOL | ND | 19 | 9.4 |
| 4-BROMOPHENYL-PHENYL ETHER | ND | 19 | 6.6 |
| 4-CHLORO-3-METHYLPHENOL | ND | 9.4 | 4.7 |
| 4-CHLOROANILINE | ND | 9.4 | 4.7 |
| 4-CHLOROPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-METHYLPHENOL (1) | ND | 9.4 | 4.7 |
| 4-NITROANILINE | ND | 9.4 | 4.7 |
| 4-NITROPHENOL | ND | 19 | 4.7 |
| ACENAPHTHENE | ND | 9.4 | 4.7 |
| ACENAPHTHYLENE | ND | 9.4 | 4.7 |
| ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)PYRENE | ND | 9.4 | 4.7 |
| BENZO(B)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(K)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(G,H,I)PERYLENE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHOXY)METHANE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-CHLOROISOPROPYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-ETHYLHEXYL)PHTHALATE | ND | 19 | 9.4 |
| BUTYLBENZYLPHTHALATE | ND | 9.4 | 4.7 |
| CHRYSENE | ND | 9.4 | 4.7 |
| DI-N-BUTYLPHTHALATE | ND | 9.4 | 4.7 |
| DI-N-OCTYLPHTHALATE | ND | 9.4 | 4.7 |
| DIBENZO(A,H)ANTHRACENE | ND | 9.4 | 4.7 |
| DIBENZOFURAN | ND | 9.4 | 4.7 |
| DIETHYLPHTHALATE | ND | 19 | 5.6 |
| DIMETHYLPHTHALATE | ND | 19 | 4.7 |
| FLUORANTHENE | ND | 9.4 | 4.7 |
| FLUORENE | ND | 19 | 5.6 |
| HEXACHLOROBENZENE | ND | 9.4 | 4.7 |
| HEXACHLOROCYCLOPENTADIENE | ND | 9.4 | 4.7 |
| HEXACHLOROETHANE | ND | 9.4 | 4.7 |
| INDENO(1,2,3-CD)PYRENE | ND | 9.4 | 4.7 |
| ISOPHORONE | ND | 9.4 | 4.7 |
| N-NITROSO-DI-N-PROPYLAMINE | ND | 9.4 | 4.7 |
| N-NITROSODIPHENYLAMINE (2) | ND | 9.4 | 4.7 |
| NITROBENZENE | ND | 9.4 | 4.7 |
| PENTACHLOROPHENOL | ND | 19 | 9.4 |
| PHENANTHRENE | ND | 19 | 5.6 |
| PHENOL | ND | 9.4 | 4.7 |
| PYRENE | ND | 9.4 | 4.7 |
| 1,1'-BIPHENYL | ND | 9.4 | 4.7 |
| ACETOPHENONE | ND | 19 | 2.3 |
| ATRAZINE | ND | 9.4 | 9.4 |
| BENZALDEHYDE | ND | 9.4 | 4.7 |
| CAPROLACTAM | ND | 9.4 | 4.7 |
| CARBAZOLE | ND | 9.4 | 4.7 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| 2,4,6-TRIBROMOPHENOL | 76 | 25-134 |
| 2-FLUOROBIPHENYL | 75 | 43-125 |
| 2-FLUOROPHENOL | 63 | 25-125 |
| NITROBENZENE-D5 | 74 | 32-125 |
| PHENOL-D5 | 65 | 25-125 |
| TERPHENYL-D14 | 103 | 42-126 |

RL: Reporting Limit
 (1): Cannot be separated from 3-Methylphenol
 (2): Cannot be separated from Diphenylamine

SW 352DC/8270C
 SEMI VOLATILE ORGANICS BY GC/MS

| | |
|------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 08/19/04 |
| Project : MFA SITE 1, CTO 86 | Date Received: 08/20/04 |
| Batch No. : 04H160 | Date Extracted: 08/25/04 16:00 |
| Sample ID: 86-S1-038 | Date Analyzed: 09/03/04 20:26 |
| Lab Samp ID: H160-07 | Dilution Factor: 94 |
| Lab File ID: R1X078 | Matrix: WATER |
| Ext Btch ID: SVH040W | % Moisture: NA |
| Calib. Ref.: R1X007 | Instrument ID: T-042 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 2,4,5-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4,6-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DIMETHYLPHENOL | ND | 9.4 | 4.7 |
| 2,4-DINITROPHENOL | ND | 19 | 9.4 |
| 2,4-DINITROTOLUENE | ND | 19 | 9.4 |
| 2,6-DINITROTOLUENE | ND | 19 | 9.4 |
| 2-CHLORONAPHTHALENE | ND | 9.4 | 4.7 |
| 2-CHLOROPHENOL | ND | 9.4 | 4.7 |
| 2-METHYLNAPHTHALENE | ND | 9.4 | 4.7 |
| 2-METHYLPHENOL | ND | 9.4 | 4.7 |
| 2-NITROANILINE | ND | 19 | 5.6 |
| 2-NITROPHENOL | ND | 9.4 | 4.7 |
| 3,3'-DICHLOROBENZIDINE | ND | 9.4 | 4.7 |
| 3-NITROANILINE | ND | 9.4 | 4.7 |
| 4,6-DINITRO-2-METHYLPHENOL | ND | 19 | 9.4 |
| 4-BROMOPHENYL-PHENYL ETHER | ND | 19 | 6.6 |
| 4-CHLORO-3-METHYLPHENOL | ND | 9.4 | 4.7 |
| 4-CHLOROANILINE | ND | 9.4 | 4.7 |
| 4-CHLOROPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-METHYLPHENOL (1) | ND | 9.4 | 4.7 |
| 4-NITROANILINE | ND | 9.4 | 4.7 |
| 4-NITROPHENOL | ND | 19 | 4.7 |
| ACENAPHTHENE | ND | 9.4 | 4.7 |
| ACENAPHTHYLENE | ND | 9.4 | 4.7 |
| ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)PYRENE | ND | 9.4 | 4.7 |
| BENZO(B)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(K)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(G,H,I)PERYLENE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHOXY)METHANE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-CHLORDISOPROPYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-ETHYLHEXYL)PHTHALATE | ND | 19 | 9.4 |
| BUTYLBENZYLPHTHALATE | ND | 9.4 | 4.7 |
| CHRYSENE | ND | 9.4 | 4.7 |
| DI-N-BUTYLPHTHALATE | ND | 9.4 | 4.7 |
| DI-N-OCTYLPHTHALATE | ND | 9.4 | 4.7 |
| DIBENZO(A,H)ANTHRACENE | ND | 9.4 | 4.7 |
| DIBENZOFURAN | ND | 9.4 | 4.7 |
| DIETHYLPHTHALATE | ND | 19 | 5.6 |
| DIMETHYLPHTHALATE | ND | 19 | 4.7 |
| FLUORANTHENE | ND | 9.4 | 4.7 |
| FLUORENE | ND | 9.4 | 4.7 |
| HEXACHLOROBENZENE | ND | 19 | 5.6 |
| HEXACHLOROCYCLOPENTADIENE | ND | 9.4 | 4.7 |
| HEXACHLOROETHANE | ND | 9.4 | 4.7 |
| INDENO(1,2,3-CD)PYRENE | ND | 9.4 | 4.7 |
| ISOPHORONE | ND | 9.4 | 4.7 |
| N-NITROSO-DI-N-PROPYLAMINE | ND | 9.4 | 4.7 |
| N-NITROSODIPHENYLAMINE (2) | ND | 9.4 | 4.7 |
| NITROBENZENE | ND | 9.4 | 4.7 |
| PENTACHLOROPHENOL | ND | 19 | 9.4 |
| PHENANTHRENE | ND | 19 | 5.6 |
| PHENOL | ND | 9.4 | 4.7 |
| PYRENE | ND | 9.4 | 4.7 |
| 1,1'-BIPHENYL | ND | 9.4 | 4.7 |
| ACETOPHENONE | ND | 9.4 | 2.3 |
| ATRAZINE | ND | 19 | 9.4 |
| BENZALDEHYDE | ND | 9.4 | 4.7 |
| CAPROLACTAM | ND | 9.4 | 4.7 |
| CARBAZOLE | ND | 9.4 | 4.7 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| 2,4,6-TRIBROMOPHENOL | 64 | 25-134 |
| 2-FLUOROBIPHENYL | 49 | 43-125 |
| 2-FLUDROPHENOL | 33 | 25-125 |
| NITROBENZENE-D5 | 39 | 32-125 |
| PHENOL-D5 | 43 | 25-125 |
| TERPHENYL-D14 | 101 | 42-126 |

RL: Reporting Limit
 (1): Cannot be separated from 3-Methylphenol
 (2): Cannot be separated from Diphenylamine

SW 3520C/B270C
 SEMI VOLATILE ORGANICS BY GC/MS

| | |
|------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC | Date Collected: 08/19/04 |
| Project : MFA SITE 1, CTO 86 | Date Received: 08/20/04 |
| Batch No. : 04H160 | Date Extracted: 08/25/04 16:00 |
| Sample ID: 86-S1-039 | Date Analyzed: 09/03/04 21:01 |
| Lab Samp ID: H160-08 | Dilution Factor: .94 |
| Lab File ID: RIX079 | Matrix : WATER |
| Ext Btch ID: SVHD40W | % Moisture : NA |
| Calib. Ref.: RIX007 | Instrument ID : T-042 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 2,4,5-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4,6-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DIMETHYLPHENOL | ND | 9.4 | 4.7 |
| 2,4-DINITROPHENOL | ND | 19 | 9.4 |
| 2,4-DINITROTOLUENE | ND | 19 | 9.4 |
| 2,6-DINITROTOLUENE | ND | 19 | 5.6 |
| 2-CHLORONAPHTHALENE | ND | 9.4 | 4.7 |
| 2-CHLOROPHENOL | ND | 9.4 | 4.7 |
| 2-METHYLNAPHTHALENE | ND | 9.4 | 4.7 |
| 2-METHYLPHENOL | ND | 9.4 | 4.7 |
| 2-NITROANILINE | ND | 19 | 5.6 |
| 2-NITROPHENOL | ND | 9.4 | 4.7 |
| 3,3'-DICHLOROBENZIDINE | ND | 9.4 | 4.7 |
| 3-NITROANILINE | ND | 19 | 4.7 |
| 4,6-DINITRO-2-METHYLPHENOL | ND | 19 | 9.4 |
| 4-BROMOPHENYL-PHENYL ETHER | ND | 9.4 | 6.6 |
| 4-CHLORO-3-METHYLPHENOL | ND | 9.4 | 4.7 |
| 4-CHLOROANILINE | ND | 9.4 | 4.7 |
| 4-CHLOROPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-METHYLPHENOL (1) | ND | 9.4 | 4.7 |
| 4-NITROANILINE | ND | 9.4 | 4.7 |
| 4-NITROPHENOL | ND | 19 | 4.7 |
| ACENAPHTHENE | ND | 9.4 | 4.7 |
| ACENAPHTHYLENE | ND | 9.4 | 4.7 |
| ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)PYRENE | ND | 9.4 | 4.7 |
| BENZO(B)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(K)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(G,H,I)PERYLENE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHOXY)METHANE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-CHLORDISOPROPYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-ETHYLHEXYL)PHTHALATE | 750* | 19 | 9.4 |
| BUTYLBENZYLPHthalate | ND | 9.4 | 4.7 |
| CHRYSENE | ND | 9.4 | 4.7 |
| DI-N-BUTYLPHthalate | ND | 9.4 | 4.7 |
| DI-N-OCTYLPHthalate | ND | 9.4 | 4.7 |
| DIBENZO(A,H)ANTHRACENE | ND | 9.4 | 4.7 |
| DIBENZOFURAN | ND | 9.4 | 4.7 |
| DIETHYLPHthalate | ND | 19 | 5.6 |
| DIMETHYLPHthalate | ND | 19 | 4.7 |
| FLUORANTHENE | ND | 9.4 | 4.7 |
| FLUORENE | ND | 9.4 | 4.7 |
| HEXACHLOROBENZENE | ND | 19 | 5.6 |
| HEXACHLOROCYCLOPENTADIENE | ND | 9.4 | 4.7 |
| HEXACHLOROETHANE | ND | 9.4 | 4.7 |
| INDENO(1,2,3-CD)PYRENE | ND | 9.4 | 4.7 |
| ISOPHORONE | ND | 9.4 | 4.7 |
| N-NITROSO-DI-N-PROPYLAMINE | ND | 9.4 | 4.7 |
| N-NITROSODIPHENYLAMINE (2) | ND | 9.4 | 4.7 |
| NITROBENZENE | ND | 9.4 | 4.7 |
| PENTACHLOROPHENOL | ND | 19 | 9.4 |
| PHENANTHRENE | ND | 19 | 5.6 |
| PHENOL | ND | 9.4 | 4.7 |
| PYRENE | ND | 9.4 | 4.7 |
| 1,1'-BIPHENYL | ND | 9.4 | 4.7 |
| ACETOPHENONE | ND | 9.4 | 2.3 |
| ATRAZINE | ND | 19 | 9.4 |
| BENZALDEHYDE | ND | 9.4 | 4.7 |
| CAPROLACTAM | ND | 9.4 | 4.7 |
| CARBAZOLE | ND | 9.4 | 4.7 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| 2,4,6-TRIBROMOPHENOL | 66 | 25-134 |
| 2-FLUOROBIPHENYL | 43 | 43-125 |
| 2-FLUOROPHENOL | 57 | 25-125 |
| NITROBENZENE-D5 | 43 | 25-125 |
| PHENOL-D5 | 40 | 25-125 |
| TERPHENYL-D14 | 105 | 42-126 |

RL: Reporting Limit

(1): Cannot be separated from 3-Methylphenol

(2): Cannot be separated from Diphenylamine

 * Suspected lab contamination. Sample was reextracted out of holding time and reanalyzed.
 No bis(2-ethylhexyl)phthalate was found.

SW 3520C/8270C
 SEMI VOLATILE ORGANICS BY GC/MS

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=====
Client      : TETRA TECH FW, INC.      Date Collected: 08/19/04
Project     : MFA SITE 1, CTO 86      Date Received: 08/20/04
Batch No.   : 04H160                  Date Extracted: 08/25/04 16:00
Sample ID   : 86-S1-040               Date Analyzed: 09/03/04 21:36
Lab Samp ID : H160-09                  Dilution Factor: .94
Lab File ID : R1X080                   Matrix: WATER
Ext Btch ID : SVH040W                  % Moisture: NA
Calib. Ref. : R1X007                  Instrument ID: T-042
=====
  
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| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 2,4,5-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4,6-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DIMETHYLPHENOL | ND | 9.4 | 4.7 |
| 2,4-DINITROPHENOL | ND | 19 | 9.4 |
| 2,4-DINITROTOLUENE | ND | 19 | 9.4 |
| 2,6-DINITROTOLUENE | ND | 19 | 5.6 |
| 2-CHLORONAPHTHALENE | ND | 9.4 | 4.7 |
| 2-CHLOROPHENOL | ND | 9.4 | 4.7 |
| 2-METHYLNAPHTHALENE | ND | 9.4 | 4.7 |
| 2-METHYLPHENOL | ND | 9.4 | 4.7 |
| 2-NITROANILINE | ND | 19 | 5.6 |
| 2-NITROPHENOL | ND | 9.4 | 4.7 |
| 3,3'-DICHLOROBENZIDINE | ND | 9.4 | 4.7 |
| 3-NITROANILINE | ND | 9.4 | 4.7 |
| 4,6-DINITRO-2-METHYLPHENOL | ND | 19 | 9.4 |
| 4-BROMOPHENYL-PHENYL ETHER | ND | 19 | 6.6 |
| 4-CHLORO-3-METHYLPHENOL | ND | 9.4 | 4.7 |
| 4-CHLOROANILINE | ND | 9.4 | 4.7 |
| 4-CHLOROPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-METHYLPHENOL (1) | ND | 9.4 | 4.7 |
| 4-NITROANILINE | ND | 9.4 | 4.7 |
| 4-NITROPHENOL | ND | 19 | 4.7 |
| ACENAPHTHENE | ND | 9.4 | 4.7 |
| ACENAPHTHYLENE | ND | 9.4 | 4.7 |
| ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)PYRENE | ND | 9.4 | 4.7 |
| BENZO(B)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(K)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(G,H,I)PERYLENE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHOXY)METHANE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-CHLOROISOPROPYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-ETHYLHEXYL)PHTHALATE | ND | 19 | 9.4 |
| BUTYLBENZYLPHTHALATE | ND | 9.4 | 4.7 |
| CHRYSENE | ND | 9.4 | 4.7 |
| DI-N-BUTYLPHTHALATE | ND | 9.4 | 4.7 |
| DI-N-OCTYLPHTHALATE | ND | 9.4 | 4.7 |
| DIBENZO(A,H)ANTHRACENE | ND | 9.4 | 4.7 |
| DIBENZOFURAN | ND | 9.4 | 4.7 |
| DIETHYLPHTHALATE | ND | 19 | 5.6 |
| DIMETHYLPHTHALATE | ND | 19 | 4.7 |
| FLUORANTHENE | ND | 9.4 | 4.7 |
| FLUORENE | ND | 9.4 | 4.7 |
| HEXACHLOROBENZENE | ND | 19 | 5.6 |
| HEXACHLOROCYCLOPENTADIENE | ND | 9.4 | 4.7 |
| HEXACHLOROETHANE | ND | 9.4 | 4.7 |
| INDENO(1,2,3-CD)PYRENE | ND | 9.4 | 4.7 |
| ISOPHORONE | ND | 9.4 | 4.7 |
| N-NITROSO-DI-N-PROPYLAMINE | ND | 9.4 | 4.7 |
| N-NITROSODIPHENYLAMINE (2) | ND | 9.4 | 4.7 |
| NITROBENZENE | ND | 9.4 | 4.7 |
| PENTACHLOROPHENOL | ND | 19 | 5.6 |
| PHENANTHRENE | ND | 19 | 4.7 |
| PHENOL | ND | 9.4 | 4.7 |
| PYRENE | ND | 9.4 | 4.7 |
| 1,1'-BIPHENYL | ND | 9.4 | 2.5 |
| ACETOPHENONE | ND | 19 | 9.4 |
| ATRAZINE | ND | 9.4 | 4.7 |
| BENZALDEHYDE | ND | 9.4 | 4.7 |
| CAPROLACTAM | ND | 9.4 | 4.7 |
| CARBAZOLE | ND | 9.4 | 4.7 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| 2,4,6-TRIBROMOPHENOL | 78 | 25-134 |
| 2-FLUOROBIPHENYL | 73 | 43-125 |
| 2-FLUOROPHENOL | 62 | 25-125 |
| NITROBENZENE-D5 | 75 | 36-125 |
| PHENOL-D5 | 68 | 25-125 |
| TERPHENYL-D14 | 124 | 42-126 |

RL: Reporting Limit

(1): Cannot be separated from 3-Methylphenol

(2): Cannot be separated from Diphenylamine

SW 3520C/8270C
 SEMI VOLATILE ORGANICS BY GC/MS

| | |
|-------------------------------|--------------------------------|
| Client : TETRA TECH, FW, INC. | Date Collected: 08/19/04 |
| Project : MFA, SITE 1, CTO 88 | Date Received: 08/20/04 |
| Batch No. : 04H160 | Date Extracted: 08/25/04 16:00 |
| Sample ID: 86-S1-041 | Date Analyzed: 09/03/04 22:12 |
| Lab Samp ID: H160-10 | Dilution Factor: .94 |
| Lab File ID: RIX081 | Matrix : WATER |
| Ext Btch ID: SVH040W | % Moisture : NA |
| Calib. Ref.: RIX007 | Instrument ID : T-042 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 2,4,5-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4,6-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DIMETHYLPHENOL | ND | 9.4 | 4.7 |
| 2,4-DINITROPHENOL | ND | 19 | 9.4 |
| 2,4-DINITROTOLUENE | ND | 19 | 9.4 |
| 2,6-DINITROTOLUENE | ND | 19 | 5.6 |
| 2-CHLORONAPHTHALENE | ND | 9.4 | 4.7 |
| 2-CHLOROPHENOL | ND | 9.4 | 4.7 |
| 2-METHYLNAPHTHALENE | ND | 9.4 | 4.7 |
| 2-METHYLPHENOL | ND | 9.4 | 4.7 |
| 2-NITROANILINE | ND | 19 | 5.6 |
| 2-NITROPHENOL | ND | 9.4 | 4.7 |
| 3,3'-DICHLOROBENZIDINE | ND | 9.4 | 4.7 |
| 3-NITROANILINE | ND | 9.4 | 4.7 |
| 4,6-DINITRO-2-METHYLPHENOL | ND | 19 | 9.4 |
| 4-BROMOPHENYL-PHENYL ETHER | ND | 19 | 6.6 |
| 4-CHLORO-3-METHYLPHENOL | ND | 9.4 | 4.7 |
| 4-CHLOROANILINE | ND | 9.4 | 4.7 |
| 4-CHLOROPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-METHYLPHENOL (1) | ND | 9.4 | 4.7 |
| 4-NITROANILINE | ND | 9.4 | 4.7 |
| 4-NITROPHENOL | ND | 19 | 4.7 |
| ACENAPHTHENE | ND | 9.4 | 4.7 |
| ACENAPHTHYLENE | ND | 9.4 | 4.7 |
| ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)PYRENE | ND | 9.4 | 4.7 |
| BENZO(B)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(K)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(G,H,I)PERYLENE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHOXY)METHANE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-CHLOROISOPROPYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-ETHYLHEXYL)PHTHALATE | ND | 19 | 9.4 |
| BUTYLBENZYLPHTHALATE | ND | 9.4 | 4.7 |
| CHRYSENE | ND | 9.4 | 4.7 |
| DI-N-BUTYLPHTHALATE | ND | 9.4 | 4.7 |
| DI-N-OCTYLPHTHALATE | ND | 9.4 | 4.7 |
| DIBENZO(A,H)ANTHRACENE | ND | 9.4 | 4.7 |
| DIBENZOFURAN | ND | 9.4 | 4.7 |
| DIETHYLPHTHALATE | ND | 19 | 5.6 |
| DIMETHYLPHTHALATE | ND | 19 | 4.7 |
| FLUORANTHENE | ND | 9.4 | 4.7 |
| FLUORENE | ND | 9.4 | 4.7 |
| HEXACHLOROBENZENE | ND | 19 | 5.6 |
| HEXACHLOROCYCLOPENTADIENE | ND | 9.4 | 4.7 |
| HEXACHLOROETHANE | ND | 9.4 | 4.7 |
| INDENO(1,2,3-CD)PYRENE | ND | 9.4 | 4.7 |
| ISOPHORONE | ND | 9.4 | 4.7 |
| N-NITROSO-DI-N-PROPYLAMINE | ND | 9.4 | 4.7 |
| N-NITROSODIPHENYLAMINE (2) | ND | 9.4 | 4.7 |
| NITROBENZENE | ND | 9.4 | 4.7 |
| PENTACHLOROPHENOL | ND | 19 | 9.4 |
| PHENANTHRENE | ND | 19 | 5.6 |
| PHENOL | ND | 9.4 | 4.7 |
| PYRENE | ND | 9.4 | 4.7 |
| 1,1'-BIPHENYL | ND | 9.4 | 4.7 |
| ACETOPHENONE | ND | 9.4 | 2.3 |
| ATRAZINE | ND | 19 | 9.4 |
| BENZALDEHYDE | ND | 9.4 | 4.7 |
| CAPROLACTAM | ND | 9.4 | 4.7 |
| CARBAZOLE | ND | 9.4 | 4.7 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| 2,4,6-TRIBROMOPHENOL | 77 | 25-134 |
| 2-FLUOROBIPHENYL | 71 | 43-125 |
| 2-FLUOROPHENOL | 62 | 25-125 |
| NITROBENZENE-D5 | 73 | 25-125 |
| PHENOL-D5 | 68 | 25-125 |
| TERPHENYL-D14 | 107 | 42-126 |

RL: Reporting Limit
 (1): Cannot be separated from 3-Methylphenol
 (2): Cannot be separated from Diphenylamine

SW 3520C/8270C
 SEMI VOLATILE ORGANICS BY GC/MS

| | |
|------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 08/19/04 |
| Project : MFA SITE 1, CTO 86 | Date Received: 08/20/04 |
| Batch No. : 04H160 | Date Extracted: 08/25/04 16:00 |
| Sample ID: 86-S1-042 | Date Analyzed: 09/04/04 18:55 |
| Lab Samp ID: H160-11W | Dilution Factor: .94 |
| Lab File ID: RIX097 | Matrix: WATER |
| Ext Btch ID: SVH040W | % Moisture: NA |
| Calib. Ref.: RIX007 | Instrument ID: T-042 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 2,4,5-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4,6-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DIMETHYLPHENOL | ND | 9.4 | 4.7 |
| 2,4-DINITROPHENOL | ND | 19 | 9.4 |
| 2,4-DINITROTOLUENE | ND | 19 | 9.4 |
| 2,6-DINITROTOLUENE | ND | 19 | 5.6 |
| 2-CHLORONAPHTHALENE | ND | 9.4 | 4.7 |
| 2-CHLOROPHENOL | ND | 9.4 | 4.7 |
| 2-METHYLNAPHTHALENE | ND | 9.4 | 4.7 |
| 2-METHYLPHENOL | ND | 9.4 | 4.7 |
| 2-NITROANILINE | ND | 19 | 5.6 |
| 2-NITROPHENOL | ND | 9.4 | 4.7 |
| 3,3'-DICHLOROBENZIDINE | ND | 9.4 | 4.7 |
| 3-NITROANILINE | ND | 9.4 | 4.7 |
| 4,6-DINITRO-2-METHYLPHENOL | ND | 19 | 9.4 |
| 4-BROMOPHENYL-PHENYL ETHER | ND | 9.4 | 6.6 |
| 4-CHLORO-3-METHYLPHENOL | ND | 9.4 | 4.7 |
| 4-CHLOROANILINE | ND | 9.4 | 4.7 |
| 4-CHLOROPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-METHYLPHENOL (1) | ND | 9.4 | 4.7 |
| 4-NITROANILINE | ND | 19 | 4.7 |
| 4-NITROPHENOL | ND | 9.4 | 4.7 |
| ACENAPHTHENE | ND | 9.4 | 4.7 |
| ACENAPHTHYLENE | ND | 9.4 | 4.7 |
| ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)PYRENE | ND | 9.4 | 4.7 |
| BENZO(B)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(K)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(G,H,I)PERYLENE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHOXY)METHANE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-CHLOROISOPROPYL)ETHER | ND | 19 | 9.4 |
| BIS(2-ETHYLHEXYL)PHTHALATE | ND | 9.4 | 4.7 |
| BUTYLBENZYLPHTHALATE | ND | 9.4 | 4.7 |
| CHRYSENE | ND | 9.4 | 4.7 |
| DI-N-BUTYLPHTHALATE | ND | 9.4 | 4.7 |
| DI-N-OCTYLPHTHALATE | ND | 9.4 | 4.7 |
| DIBENZO(A,H)ANTHRACENE | ND | 9.4 | 4.7 |
| DIBENZOFURAN | ND | 19 | 5.6 |
| DIMETHYLPHTHALATE | ND | 19 | 4.7 |
| FLUORANTHENE | ND | 9.4 | 4.7 |
| FLUORENE | ND | 9.4 | 4.7 |
| HEXACHLOROBENZENE | ND | 19 | 5.6 |
| HEXACHLOROCYCLOPENTADIENE | ND | 9.4 | 4.7 |
| HEXACHLOROETHANE | ND | 9.4 | 4.7 |
| INDENO(1,2,3-CD)PYRENE | ND | 9.4 | 4.7 |
| ISOPHORONE | ND | 9.4 | 4.7 |
| N-NITROSO-DI-N-PROPYLAMINE | ND | 9.4 | 4.7 |
| N-NITROSODIPHENYLAMINE (2) | ND | 9.4 | 4.7 |
| NITROBENZENE | ND | 9.4 | 4.7 |
| PENTACHLOROPHENOL | ND | 19 | 5.6 |
| PHENANTHRENE | ND | 9.4 | 4.7 |
| PHENOL | ND | 9.4 | 4.7 |
| PYRENE | ND | 9.4 | 4.7 |
| 1,1'-BIPHENYL | ND | 9.4 | 4.7 |
| ACETOPHENONE | ND | 9.4 | 2.3 |
| ATRAZINE | ND | 19 | 9.4 |
| BENZALDEHYDE | ND | 9.4 | 4.7 |
| CAPROLACTAM | ND | 9.4 | 4.7 |
| CARBAZOLE | ND | 9.4 | 4.7 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| 2,4,6-TRIBROMOPHENOL | 84 | 25-134 |
| 2-FLUOROBIPHENYL | 63 | 43-125 |
| 2-FLUOROPHENOL | 49 | 29-125 |
| NITROBENZENE-D5 | 55 | 29-125 |
| PHENOL-D5 | 60 | 29-125 |
| TERPHENYL-D14 | 98 | 42-126 |

RL: Reporting Limit

(1): Cannot be separated from 3-Methylphenol

(2): Cannot be separated from Diphenylamine

SW 3520C/8270C
 SEMI VOLATILE ORGANICS BY GC/MS

| | |
|------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 08/19/04 |
| Project : MFA SITE 1, CTO 86 | Date Received: 08/20/04 |
| Batch No. : 04160 | Date Extracted: 08/25/04 16:00 |
| Sample ID: 86-S1-030 | Date Analyzed: 09/04/04 19:30 |
| Lab Samp ID: H160-12W | Dilution Factor: .94 |
| Lab File ID: RIX098 | Matrix: WATER |
| Ext Btch ID: SVH040W | % Moisture: NA |
| Calib. Ref.: RIX007 | Instrument ID: T-042 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 2,4,5-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4,6-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DIMETHYLPHENOL | ND | 9.4 | 4.7 |
| 2,4-DINITROPHENOL | ND | 19 | 9.4 |
| 2,6-DINITROPHENOL | ND | 19 | 9.4 |
| 2,6-DINITROTOLUENE | ND | 19 | 5.6 |
| 2-CHLORONAPHTHALENE | ND | 9.4 | 4.7 |
| 2-CHLOROPHENOL | ND | 9.4 | 4.7 |
| 2-METHYLNAPHTHALENE | ND | 9.4 | 4.7 |
| 2-METHYLPHENOL | ND | 9.4 | 4.7 |
| 2-NITROANILINE | ND | 19 | 5.6 |
| 2-NITROPHENOL | ND | 9.4 | 4.7 |
| 3,3'-DICHLOROBENZIDINE | ND | 9.4 | 4.7 |
| 3-NITROANILINE | ND | 9.4 | 4.7 |
| 4,6-DINITRO-2-METHYLPHENOL | ND | 19 | 9.4 |
| 4-BROMOPHENYL-PHENYL ETHER | ND | 19 | 6.6 |
| 4-CHLORO-3-METHYLPHENOL | ND | 9.4 | 4.7 |
| 4-CHLOROANILINE | ND | 9.4 | 4.7 |
| 4-CHLOROPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-METHYLPHENOL (1) | ND | 9.4 | 4.7 |
| 4-NITROANILINE | ND | 19 | 4.7 |
| 4-NITROPHENOL | ND | 9.4 | 4.7 |
| ACENAPHTHENE | ND | 9.4 | 4.7 |
| ACENAPHTHYLENE | ND | 9.4 | 4.7 |
| ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)PYRENE | ND | 9.4 | 4.7 |
| BENZO(B)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(K)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(G,H,I)PERYLENE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHOXY)METHANE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-CHLOROISOPROPYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-ETHYLHEXYL)PHthalate | ND | 19 | 9.4 |
| BUTYLBENZYLPHthalate | ND | 9.4 | 4.7 |
| CHRYSENE | ND | 9.4 | 4.7 |
| DI-N-BUTYLPHthalate | ND | 9.4 | 4.7 |
| DI-N-OCTYLPHthalate | ND | 9.4 | 4.7 |
| DIBENZO(A,H)ANTHRACENE | ND | 9.4 | 4.7 |
| DIBENZOFURAN | ND | 19 | 5.6 |
| DIEthylPHthalate | ND | 19 | 4.7 |
| DIMETHYLPHthalate | ND | 9.4 | 4.7 |
| FLUORANTHENE | ND | 9.4 | 4.7 |
| FLUORENE | ND | 9.4 | 4.7 |
| HEXACHLOROBENZENE | ND | 19 | 5.6 |
| HEXACHLOROCYCLOPENTADIENE | ND | 9.4 | 4.7 |
| HEXACHLOROETHANE | ND | 9.4 | 4.7 |
| INDENO(1,2,3-CD)PYRENE | ND | 9.4 | 4.7 |
| ISOPHORONE | ND | 9.4 | 4.7 |
| N-NITROSO-DI-N-PROPYLAMINE | ND | 9.4 | 4.7 |
| N-NITROSODIPHENYLAMINE (2) | ND | 9.4 | 4.7 |
| NITROBENZENE | ND | 9.4 | 4.7 |
| PENTACHLOROPHENOL | ND | 19 | 5.6 |
| PHENANTHRENE | ND | 9.4 | 4.7 |
| PHENOL | ND | 9.4 | 4.7 |
| PYRENE | ND | 9.4 | 4.7 |
| 1,1'-BIPHENYL | ND | 9.4 | 4.7 |
| ACETOPHENONE | ND | 9.4 | 2.3 |
| ATRAZINE | ND | 19 | 9.4 |
| BENZALDEHYDE | ND | 9.4 | 4.7 |
| CAPROLACTAM | ND | 9.4 | 4.7 |
| CARBAZOLE | ND | 9.4 | 4.7 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| 2,4,6-TRIBROMOPHENOL | 71 | 25-134 |
| 2-FLUOROBIPHENYL | 59 | 43-125 |
| 2-FLUOROPHENOL | 53 | 25-125 |
| NITROBENZENE-D5 | 64 | 36-125 |
| PHENOL-D5 | 59 | 42-125 |
| TERPHENYL-D14 | 92 | 42-126 |

RL: Reporting Limit
 (1): Cannot be separated from 3-Methylphenol
 (2): Cannot be separated from Diphenylamine

CASE NARRATIVE

CLIENT: TETRA TECH FW, INC.

PROJECT: MFA, SITE 1, CTO 86

SDG: 04H160

**METHOD 7470A
DISSOLVED MERCURY BY COLD VAPOR**

Twelve (12) water samples were received on 08/20/04 for Dissolved Mercury analysis by Method 7470A in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW846, 3rd edition.

1. Holding Time

Analysis met the holding time criteria.

2. Method Blank

Method blanks were free of contamination at the reporting limit.

3. Lab Control Sample/Lab Control Sample Duplicate

Lab control results were within the QC limit.

4. Serial Dilution/Post Analytical Spike

Sample H160-06 was analyzed for serial dilution and post analytical spike. All QC requirements were met.

5. Matrix Spike/Matrix Spike Duplicate

Sample H160-06 was spiked. Recoveries were within QC limit.

6. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criteria were met.

Samples were analyzed at DF40 due to matrix interference of high chloride level.

METHOD 7470A
DISSOLVED MERCURY BY COLD VAPOR

Client : TETRA TECH FW, INC.
Project : MFA, SITE 1, CTO B6
Batch No. : 04H160
Matrix : WATER
Instrument ID : T1047

| SAMPLE ID | EMAX SAMPLE ID | RESULTS (ug/L) | DLF | MOIST | RL (ug/L) | MOL (ug/L) | Analysis DATE/TIME | Extraction DATE/TIME | LFID | CAL REF | PREP BATCH | Collection DATE/TIME | Received DATE/TIME |
|--------------|-------------------|-------------------|-----|-------|--------------|---------------|-----------------------|-------------------------|------------|------------|------------|-------------------------|-----------------------|
| M8LK1W | HGH042MR | ND | 1 | NA | .2 | .1 | 08/27/04 11:46 | 08/26/04 12:30 | M47H047010 | M47H047008 | HGH042M | NA | 08/26/04 |
| LCS1W | HGH042WL | 5.02 | 1 | NA | .2 | .1 | 08/27/04 11:48 | 08/26/04 12:30 | M47H047011 | M47H047008 | HGH042M | NA | 08/26/04 |
| LCD1W | HGH042WC | 5.01 | 1 | NA | .2 | .1 | 08/27/04 11:51 | 08/26/04 12:30 | M47H047012 | M47H047008 | HGH042M | NA | 08/26/04 |
| 86-S1-031 | H160-01 | ND | 40 | NA | 8 | 4 | 08/27/04 12:04 | 08/26/04 12:30 | M47H047018 | M47H047008 | HGH042M | 08/18/04 | 08/20/04 |
| 86-S1-032 | H160-02 | ND | 40 | NA | 8 | 4 | 08/27/04 12:06 | 08/26/04 12:30 | M47H047019 | M47H047008 | HGH042M | 08/18/04 | 08/20/04 |
| 86-S1-034 | H160-03 | ND | 40 | NA | 8 | 4 | 08/27/04 12:13 | 08/26/04 12:30 | M47H047022 | M47H047020 | HGH042M | 08/18/04 | 08/20/04 |
| 86-S1-035 | H160-04 | ND | 40 | NA | 8 | 4 | 08/27/04 12:15 | 08/26/04 12:30 | M47H047023 | M47H047020 | HGH042M | 08/18/04 | 08/20/04 |
| 86-S1-036 | H160-05 | ND | 40 | NA | 8 | 4 | 08/27/04 12:17 | 08/26/04 12:30 | M47H047024 | M47H047020 | HGH042M | 08/19/04 | 08/20/04 |
| 86-S1-038 | H160-07 | ND | 40 | NA | 8 | 4 | 08/27/04 12:19 | 08/26/04 12:30 | M47H047025 | M47H047020 | HGH042M | 08/19/04 | 08/20/04 |
| 86-S1-039 | H160-08 | ND | 40 | NA | 8 | 4 | 08/27/04 12:22 | 08/26/04 12:30 | M47H047026 | M47H047020 | HGH042M | 08/19/04 | 08/20/04 |
| 86-S1-040 | H160-09 | ND | 40 | NA | 8 | 4 | 08/27/04 12:24 | 08/26/04 12:30 | M47H047027 | M47H047020 | HGH042M | 08/19/04 | 08/20/04 |
| 86-S1-041 | H160-10 | ND | 40 | NA | 8 | 4 | 08/27/04 12:26 | 08/26/04 12:30 | M47H047028 | M47H047020 | HGH042M | 08/19/04 | 08/20/04 |
| 86-S1-042 | H160-11 | ND | 40 | NA | 8 | 4 | 08/27/04 12:28 | 08/26/04 12:30 | M47H047029 | M47H047020 | HGH042M | 08/19/04 | 08/20/04 |
| 86-S1-030 | H160-12 | ND | 40 | NA | 8 | 4 | 08/27/04 12:30 | 08/26/04 12:30 | M47H047030 | M47H047020 | HGH042M | 08/19/04 | 08/20/04 |
| M8LK2W | HGI006WB | ND | 1 | NA | .2 | .1 | 09/03/04 18:00 | 09/03/04 11:00 | M471008010 | M471008008 | HGI006W | NA | 09/03/04 |
| LCS2W | HGI006WL | 5.01 | 1 | NA | .2 | .1 | 09/03/04 18:02 | 09/03/04 11:00 | M471008011 | M471008008 | HGI006W | NA | 09/03/04 |
| LCD2W | HGI006WC | 5.08 | 1 | NA | .2 | .1 | 09/03/04 18:04 | 09/03/04 11:00 | M471008012 | M471008008 | HGI006W | NA | 09/03/04 |
| 86-S1-037AS | H160-06A | 70.4 | 40 | NA | 8 | 4 | 09/03/04 18:28 | 09/03/04 11:00 | M471008022 | M471008020 | HGI006W | 08/19/04 | 08/20/04 |
| 86-S1-037 | H160-06 | ND | 40 | NA | 8 | 4 | 09/03/04 18:30 | 09/03/04 11:00 | M471008023 | M471008020 | HGI006W | 08/19/04 | 08/20/04 |
| 86-S1-037DL | H160-06T | ND | 200 | NA | 40 | 20 | 09/03/04 18:32 | 09/03/04 11:00 | M471008024 | M471008020 | HGI006W | 08/19/04 | 08/20/04 |
| 86-S1-037NS | H160-06M | 43.6 | 40 | NA | 8 | 4 | 09/03/04 18:34 | 09/03/04 11:00 | M471008025 | M471008020 | HGI006W | 08/19/04 | 08/20/04 |
| 86-S1-037NSD | H160-06S | 44 | 40 | NA | 8 | 4 | 09/03/04 18:37 | 09/03/04 11:00 | M471008026 | M471008020 | HGI006W | 08/19/04 | 08/20/04 |

RL: Reporting Limit

7002

**Laboratory Data Consultants, Inc.
Data Validation Report**

Project/Site Name: Moffett Airfield, CTO 86
Collection Date: August 18 through August 19, 2004
LDC Report Date: September 30, 2004
Matrix: Water
Parameters: Semivolatiles
Validation Level: EPA Level III & IV
Laboratory: EMAX Laboratories, Inc.
Sample Delivery Group (SDG): 04H160

ORIGINAL

Sample Identification

86-S1-031
86-S1-032
86-S1-034
86-S1-035
86-S1-036**
86-S1-037
86-S1-038
86-S1-039**
86-S1-040
86-S1-041**
86-S1-042
86-S1-030
86-S1-037MS
86-S1-037MSD

**Indicates sample underwent EPA Level IV review

Introduction

This data review covers 14 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8270C for Semivolatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XVI.

Samples indicated by a double asterisk on the front cover underwent a EPA Level IV review. A EPA Level III review was performed on all of the other samples. Raw data were not evaluated for the samples reviewed by Level III criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UU Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

The mean percent relative standard deviation (%RSD) for all compounds was less than or equal to 15.0% and less than or equal to 30.0% for selected individual compounds.

A curve fit, based on the initial calibration, was established for quantitation for selected compounds. The coefficient of determination (r^2) was greater than or equal to 0.990.

Average relative response factors (RRF) for all system performance check compounds (SPCCs) were within method criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

For the purposes of technical evaluation, all compounds were evaluated against the 25.0% (%D) National Functional Guideline criteria. Unless noted above, all compounds were within the validation criteria with the following exceptions:

| Date | Compound | %D | Associated Samples | Flag | A or P |
|--------|---------------------|------|------------------------------------------------------|-----------------------------------------|--------|
| 9/3/04 | Di-n-octylphthalate | 22.2 | 86-S1-038 86-S1-039** 86-S1-040 86-S1-041** | J (all detects) UJ (all non-detects) | P |
| 9/4/04 | Di-n-octylphthalate | 25.6 | 86-S1-042 86-S1-030 | J (all detects) UJ (all non-detects) | P |

Initial calibration verification (ICV) percent differences (%D) were less than or equal to 20.0% for all compounds with the following exceptions:

| Date | Compound | %D | Associated Samples | Flag | A or P |
|--------|------------------------|------|---------------------------|-----------------------------------------|--------|
| 9/1/04 | N-Nitrosodiphenylamine | 22.0 | All samples in SDG 04H160 | J (all detects) UJ (all non-detects) | A |

All of the continuing calibration RRF values for all system performance check compounds (SPCCs) were within method criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No semivolatile contaminants were found in the method blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

| Spike ID (Associated Samples) | Compound | MS (%R) (Limits) | MSD (%R) (Limits) | RPD (Limits) | Flag | A or P |
|----------------------------------|---------------|---------------------|----------------------|------------------|-----------------------------------------|--------|
| 86-S1-037MS/MSD (86-S1-037) | 4-Nitrophenol | - | - | 34 (≤ 30) | J (all detects) UJ (all non-detects) | A |

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XII. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XV. Overall Assessment

Data flags have been summarized at the end of the report.

XVI. Field Duplicates

Samples 86-S1-035 and 86-S1-036** and samples 86-S1-038 and 86-S1-039** were identified as field duplicates. No semivolatiles were detected in any of the samples with the following exceptions:

| Compound | Concentration (ug/L) | | RPD |
|----------------------------|----------------------|-------------|----------------|
| | 86-S1-038 | 86-S1-039** | |
| Bis(2-ethylhexyl)phthalate | 19U | 750 | Not calculable |

XVII. Field Blanks

No field blanks were identified in this SDG.

Moffett Airfield, CTO 86
Semivolatiles - Data Qualification Summary - SDG 04H160

| SDG | Sample | Compound | Flag | A or P | Reason |
|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|-----------------------------------------|--------|--------------------------------------------|
| 04H160 | 86-S1-038 86-S1-039** 86-S1-040 86-S1-041** 86-S1-042 86-S1-030 | Di-n-octylphthalate | J (all detects) UJ (all non-detects) | P | Continuing calibration (%D) |
| 04H160 | 86-S1-031 86-S1-032 86-S1-034 86-S1-035 86-S1-036** 86-S1-037 86-S1-038 86-S1-039** 86-S1-040 86-S1-041** 86-S1-042 86-S1-030 | N-Nitrosodiphenylamine | J (all detects) UJ (all non-detects) | A | Continuing calibration (ICV %D) |
| 04H160 | 86-S1-037 | 4-Nitrophenol | J (all detects) UJ (all non-detects) | A | Matrix spike/Matrix spike duplicates (RPD) |

Moffett Airfield, CTO 86
Semivolatiles - Laboratory Blank Data Qualification Summary - SDG 04H160

No Sample Data Qualified in this SDG

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Moffett Airfield, CTO 86
Collection Date: August 18 through August 19, 2004
LDC Report Date: September 30, 2004
Matrix: Water
Parameters: Dissolved Mercury
Validation Level: EPA Level III & IV
Laboratory: EMAX Laboratories, Inc.
Sample Delivery Group (SDG): 04H160

ORIGINAL

Sample Identification

86-S1-031
86-S1-032
86-S1-034
86-S1-035
86-S1-036**
86-S1-037
86-S1-038
86-S1-039**
86-S1-040
86-S1-041**
86-S1-042
86-S1-030
86-S1-037MS
86-S1-037MSD

**Indicates sample underwent EPA Level IV review

Introduction

This data review covers 14 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 7470A for Dissolved Mercury.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (February 1994) as there are no current guidelines for the method stated above.

A table summarizing all data qualification flags is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from specified protocols or is of technical advisory nature.

Blanks are summarized in Section III.

Field duplicates are summarized in Section XIII.

Samples indicated by a double asterisk on the front cover underwent a EPA Level IV review. A EPA Level III review was performed on all of the other samples. Raw data were not evaluated for the samples reviewed by Level III criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

An initial calibration was performed.

The frequency and analysis criteria of the initial calibration verification (ICV) and continuing calibration verification (CCV) were met.

III. Blanks

Method blanks were reviewed for each matrix as applicable.

Data qualification by the initial, continuing and preparation blanks (ICB/CCB/PBs) was based on the maximum contaminant concentration in the ICB/CCB/PBs in the analysis of each analyte. No contaminant concentrations were found in the initial, continuing and preparation blanks.

IV. ICP Interference Check Sample (ICS) Analysis

ICP interference check sample was not required by the method.

V. Matrix Spike Analysis

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VI. Duplicate Sample Analysis

The laboratory has indicated that there were no duplicate (DUP) analyses specified for the samples in this SDG, and therefore duplicate analyses were not performed for this SDG.

VII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Internal Standards

ICP-MS was not utilized in this SDG.

IX. Furnace Atomic Absorption QC

Graphite furnace atomic absorption was not utilized in this SDG.

X. ICP Serial Dilution

ICP serial dilution was not required by the method.

XI. Sample Result Verification

All sample result verifications met validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XII. Overall Assessment of Data

Data flags have been summarized at the end of this report.

XIII. Field Duplicates

Samples 86-S1-035 and 86-S1-036** and samples 86-S1-038 and 86-S1-039** were identified as field duplicates. No dissolved mercury was detected in any of the samples.

XIV. Field Blanks

No field blanks were identified in this SDG.

Moffett Airfield, CTO 86

Dissolved Mercury - Data Qualification Summary - SDG 04H160

No Sample Data Qualified in this SDG

Moffett Airfield, CTO 86

Dissolved Mercury - Laboratory Blank Data Qualification Summary - SDG 04H160

No Sample Data Qualified in this SDG

SEPTEMBER 2004



CHAIN-OF-CUSTODY RECORD

| PROJECT NAME CTO 86-Site1- R4/04 | | PURCHASE ORDER NO. 20848 Task 28 | | ANALYSES REQUIRED | | | | | | | | | | LABORATORY NAME EMAX | | Project Information Section Do not submit to Laboratory | | | | | | |
|---------------------------------------------------|-------------------|-----------------------------------------|---------------------|----------------------------------|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|--|--|--|--|--|--|---------------------------------------------|--|------------------------------------------------------------------|--|------------|----------|--------------------------------------------------|-----|-----|
| PROJECT LOCATION Morfett | | PROJECT NO. 190-0860 | | | | | | | | | | | | LABORATORY ID (FOR LABORATORY) 04I157 | | | | | | | | |
| SAMPLER NAME D. Harrison | | SAMPLER SIGNATURE <i>[Signature]</i> | | | | | | | | | | | | | | | | | | | | |
| PROJECT CONTACT Lynn Jefferson | | AIRBILL NUMBER 845907613080 | | | | | | | | | | | | | | | | | | | | |
| SAMPLE ID | DATE COLLECTED | TIME COLLECTED | NO. OF CONTAINER | LEVEL | | T Y P E | T A T | | | | | | | | | | | COMMENTS | LOCATION | DEPTH | | QC |
| | | | | 3 | 4 | | | | | | | | | | | | | | | START | END | |
| 86-SI-0113 | 9/27/04 | 1105 | 3 | X | | W | to day | | | | | | | | | | | | W1-1R | | | Reg |
| 86-SI-044 | 9/27/04 | 1155 | 3 | X | | W | to day | | | | | | | | | | | | W1-15 | | | Reg |
| 86-SI-045 | 9/27/04 | 1300 | 3 | X | | W | to day | | | | | | | | | | | | W1-19 | | | Reg |
| 86-SI-047 | 9/27/04 | 1355 | 9 | X | | W | to day | | | | | | | | | | | RUN MS/MSD | W1-14 | | | Reg |
| 86-SI-048 | 9/28/04 | 0820 | 3 | X | | W | to day | | | | | | | | | | | | W1-12R | | | Reg |
| 86-SI-049 | 9/28/04 | 0825 | 3 | X | | W | to day | | | | | | | | | | | | W1-12R | | | Reg |
| 86-SI-050 | 9/28/04 | 0930 | 3 | X | | W | to day | | | | | | | | | | | | W1-22 | | | Reg |
| 86-SI-051 | 9/28/04 | 1030 | 3 | X | | W | to day | | | | | | | | | | | | W1-5 | | | Reg |
| <i>[Large handwritten signature/initials]</i> | | | | | | | | | | | | | | | | | | | | | | |
| RELINQUISHED BY (Signature) <i>[Signature]</i> | | DATE 9/28/04 | | RECEIVED BY (Signature) FELIX | | LABORATORY INSTRUCTIONS/COMMENTS D. Merc. was field filtered | | | | | | | | | | | | | | SAMPLING COMMENT: Site 1 R4/04 Baseline | | |
| COMPANY FELIX | | TIME 1300 | | COMPANY | | | | | | | | | | | | | | | | | | |
| RELINQUISHED BY (Signature) | | DATE | | RECEIVED BY (Signature) | | COMPOSITE DESCRIPTION | | | | | | | | | | | | | | | | |
| COMPANY | | TIME | | COMPANY | | | | | | | | | | | | | | | | | | |
| RELINQUISHED BY (Signature) | | DATE | | RECEIVED BY (Signature) | | SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY) | | | | | | | | | | | | | | | | |
| COMPANY | | TIME | | COMPANY | | TEMPERATURE: _____ SAMPLE CONDITION: <input type="checkbox"/> INTACT <input type="checkbox"/> BROKEN COOLER SEAL: <input type="checkbox"/> INTACT <input type="checkbox"/> BROKEN | | | | | | | | | | | | | | | | |

EMAX
LABORATORIES, INC.
1835 W. 205th Street
Torrance, CA 90501
Tel: (310) 618-8889
Fax: (310) 618-0818

Date: 10-13-2004
EMAX Batch No.: 041157

Attn: Lynn Jefferson

Tetra Tech FW, Inc.
1940 E Deere Ave, Suite 200
Santa Ana CA 92705

Subject: Laboratory Report
Project: MFA, Site 1, CTO 86

Enclosed is the Laboratory report for samples received on
09/29/04. The data reported include :

| Sample ID | Control # | Col Date | Matrix | Analysis |
|--------------|-----------|----------|--------|----------------------------------------------------|
| 86-S1-043 | I157-01 | 09/27/04 | WATER | MERCURY DISSOLVED SEMIVOLATILE ORGANICS BY GCMS |
| 86-S1-044 | I157-02 | 09/27/04 | WATER | MERCURY DISSOLVED SEMIVOLATILE ORGANICS BY GCMS |
| 86-S1-045 | I157-03 | 09/27/04 | WATER | MERCURY DISSOLVED SEMIVOLATILE ORGANICS BY GCMS |
| 86-S1-047 | I157-04 | 09/27/04 | WATER | MERCURY DISSOLVED SEMIVOLATILE ORGANICS BY GCMS |
| 86-S1-048 | I157-05 | 09/28/04 | WATER | MERCURY DISSOLVED SEMIVOLATILE ORGANICS BY GCMS |
| 86-S1-049 | I157-06 | 09/28/04 | WATER | MERCURY DISSOLVED SEMIVOLATILE ORGANICS BY GCMS |
| 86-S1-050 | I157-07 | 09/28/04 | WATER | MERCURY DISSOLVED SEMIVOLATILE ORGANICS BY GCMS |
| 86-S1-051 | I157-08 | 09/28/04 | WATER | MERCURY DISSOLVED SEMIVOLATILE ORGANICS BY GCMS |
| 86-S1-047MS | I157-04M | 09/27/04 | WATER | MERCURY DISSOLVED SEMIVOLATILE ORGANICS BY GCMS |
| 86-S1-047MSD | I157-04S | 09/27/04 | WATER | MERCURY DISSOLVED |

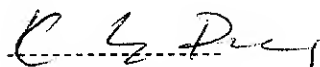
Sample ID Control # Col Date Matrix Analysis

SEMIVOLATILE ORGANICS BY GCMS

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning these results.

Sincerely yours,



Kam Y. Pang, Ph.D.
Laboratory Director

CASE NARRATIVE

CLIENT: TETRA TECH FW, INC.

PROJECT: MFA, SITE 1, CTO 86

SDG: 04/157

**SW 3520C/8270C
SEMI VOLATILE ORGANICS BY GC/MS**

Eight (8) water samples were received on 09/29/04 for Semi Volatile Organic analysis by Method 3520C/8270C in accordance with USEPA SW846, 3rd ed.

1. Holding Time

Analytical holding time was met.

2. Tuning and Calibration

Tuning and calibration were carried out at 12-hour interval. All QC requirements were met.

3. Method Blank

Method blanks were free of contamination at the reporting limit.

4. Surrogate Recovery

Recoveries were within QC limit.

5. Lab Control Sample/Lab Control Sample Duplicate

Recoveries were within QC limit. RPD of two analytes were above QC limit.

6. Matrix Spike/Matrix Spike Duplicate

Sample 1157-04 was spiked. All recoveries were within QC limit.

7. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criteria were met with the aforementioned exception.

SW 3520C/8270C
 SEMI VOLATILE ORGANICS BY GC/MS

| | |
|------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 09/27/04 |
| Project : MFA SITE 1, CTO 86 | Date Received: 09/29/04 |
| Batch No. : 041157 | Date Extracted: 09/30/04 13:00 |
| Sample ID: 86-S1-043 | Date Analyzed: 10/04/04 17:23 |
| Lab Samp ID: I157-01 | Dilution Factor: 1.01 |
| Lab File ID: RJX009 | Matrix : WATER |
| Ext Btch ID: SVI034W | % Moisture : NA |
| Calib. Ref.: RIX007 | Instrument ID : T-042 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 2,4,5-TRICHLOROPHENOL | ND | 10 | 5 |
| 2,4,6-TRICHLOROPHENOL | ND | 10 | 5 |
| 2,4-DICHLOROPHENOL | ND | 10 | 5 |
| 2,4-DIMETHYLPHENOL | ND | 10 | 5 |
| 5,4-DINITROPHENOL | ND | 20 | 10 |
| 5,4-DINITROTOLUENE | ND | 20 | 10 |
| 5,6-DINITROTOLUENE | ND | 20 | 6.1 |
| 2-CHLORONAPHTHALENE | ND | 10 | 5 |
| 2-CHLOROPHENOL | ND | 10 | 5 |
| 2-METHYLNAPHTHALENE | ND | 10 | 5 |
| 2-METHYLPHENOL | ND | 10 | 5 |
| 2-NITROANILINE | ND | 20 | 6.1 |
| 2-NITROPHENOL | ND | 10 | 5 |
| 3,3'-DICHLOROBENZIDINE | ND | 10 | 5 |
| 3-NITROANILINE | ND | 10 | 5 |
| 4,6-DINITRO-2-METHYLPHENOL | ND | 20 | 10 |
| 4-BROMOPHENYL-PHENYL ETHER | ND | 20 | 7.1 |
| 4-CHLORO-3-METHYLPHENOL | ND | 10 | 5 |
| 4-CHLOROANILINE | ND | 10 | 5 |
| 4-CHLOROPHENYL-PHENYL ETHER | ND | 10 | 5 |
| 4-METHYLPHENOL (1) | ND | 10 | 5 |
| 4-NITROANILINE | ND | 10 | 5 |
| 4-NITROPHENOL | ND | 20 | 5 |
| ACENAPHTHENE | ND | 10 | 5 |
| ACENAPHTHYLENE | ND | 10 | 5 |
| ANTHRACENE | ND | 10 | 5 |
| BENZO(A)ANTHRACENE | ND | 10 | 5 |
| BENZO(A)PYRENE | ND | 10 | 5 |
| BENZO(B)FLUORANTHENE | ND | 10 | 5 |
| BENZO(K)FLUORANTHENE | ND | 10 | 5 |
| BENZO(G,H,I)PERYLENE | ND | 10 | 5 |
| BIS(2-CHLOROETHOXY)METHANE | ND | 10 | 5 |
| BIS(2-CHLOROETHYL)ETHER | ND | 10 | 5 |
| BIS(2-CHLOROISOPROPYL)ETHER | ND | 10 | 5 |
| BIS(2-ETHYLHEXYL)PHTHALATE | ND | 20 | 10 |
| BUTYLBENZYLPHTHALATE | ND | 10 | 5 |
| CHRYSENE | ND | 10 | 5 |
| DI-N-BUTYLPHTHALATE | ND | 10 | 5 |
| DI-N-OCTYLPHTHALATE | ND | 10 | 5 |
| DIBENZO(A,H)ANTHRACENE | ND | 10 | 5 |
| DIBENZOFURAN | ND | 10 | 5 |
| DIETHYLPHTHALATE | ND | 20 | 6.1 |
| DIMETHYLPHTHALATE | ND | 20 | 5 |
| FLUORANTHENE | ND | 10 | 5 |
| FLUORENE | ND | 10 | 5 |
| HEXACHLOROBENZENE | ND | 20 | 6.1 |
| HEXACHLOROCYCLOPENTADIENE | ND | 10 | 5 |
| HEXACHLOROETHANE | ND | 10 | 5 |
| INDENO(1,2,3-CD)PYRENE | ND | 10 | 5 |
| ISOPHORONE | ND | 10 | 5 |
| N-NITROSO-DI-N-PROPYLAMINE | ND | 10 | 5 |
| N-NITROSDIPHENYLAMINE (2) | ND | 10 | 5 |
| NITROBENZENE | ND | 10 | 5 |
| PENTACHLOROPHENOL | ND | 20 | 10 |
| PHENANTHRENE | ND | 20 | 6.1 |
| PHENOL | ND | 10 | 5 |
| PYRENE | ND | 10 | 5 |
| 1,1'-BIPHENYL | ND | 10 | 5 |
| ACETOPHENONE | ND | 10 | 2.1 |
| ATRAZINE | ND | 20 | 5 |
| BENZALDEHYDE | ND | 10 | 5 |
| CAPROLACTAM | ND | 10 | 5 |
| CARBAZOLE | ND | 10 | 5 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| 2,4,6-TRIBROMOPHENOL | 85 | 25-134 |
| 2-FLUOROBIPHENYL | 57 | 43-125 |
| 2-FLUOROPHENOL | 47 | 25-125 |
| NITROBENZENE-D5 | 55 | 32-125 |
| PHENOL-D5 | 51 | 25-125 |
| TERPHENYL-D14 | 100 | 42-126 |

RL: Reporting Limit
 (1): Cannot be separated from 3-Methylphenol
 (2): Cannot be separated from Diphenylamine

SW 3520C/8270C
 SEMI VOLATILE ORGANICS BY GC/MS

| | |
|------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 09/27/04 |
| Project : MFA SITE 1, CTO 86 | Date Received: 09/29/04 |
| Batch No. : 041157 | Date Extracted: 09/30/04 13:00 |
| Sample ID: 86-S1-044 | Date Analyzed: 10/04/04 17:58 |
| Lab Samp ID: 1157-02 | Dilution Factor: .96 |
| Lab File ID: RJX010 | Matrix : WATER |
| Ext Btch ID: SV1034W | % Moisture : NA |
| Calib. Ref.: RIX007 | Instrument ID : T-042 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 2,4,5-TRICHLOROPHENOL | ND | 9.6 | 4.8 |
| 2,4,6-TRICHLOROPHENOL | ND | 9.6 | 4.8 |
| 2,4-DICHLOROPHENOL | ND | 9.6 | 4.8 |
| 2,4-DIMETHYLPHENOL | ND | 9.6 | 4.8 |
| 2,4-DINITROPHENOL | ND | 19 | 9.6 |
| 2,4-DINITROTOLUENE | ND | 19 | 9.6 |
| 2,6-DINITROTOLUENE | ND | 19 | 5.8 |
| 2-CHLORONAPHTHALENE | ND | 9.6 | 4.8 |
| 2-CHLOROPHENOL | ND | 9.6 | 4.8 |
| 2-METHYLNAPHTHALENE | ND | 9.6 | 4.8 |
| 2-METHYLPHENOL | ND | 19 | 4.8 |
| 2-NITROANILINE | ND | 9.6 | 5.8 |
| 2-NITROPHENOL | ND | 9.6 | 4.8 |
| 3,3'-DICHLOROBENZIDINE | ND | 9.6 | 4.8 |
| 3-NITROANILINE | ND | 9.6 | 4.8 |
| 4,6-DINITRO-2-METHYLPHENOL | ND | 19 | 9.6 |
| 4-BROMOPHENYL-PHENYL ETHER | ND | 19 | 6.7 |
| 4-CHLORO-3-METHYLPHENOL | ND | 9.6 | 4.8 |
| 4-CHLORDANILINE | ND | 9.6 | 4.8 |
| 4-CHLOROPHENYL-PHENYL ETHER | ND | 9.6 | 4.8 |
| 4-METHYLPHENOL (1) | ND | 9.6 | 4.8 |
| 4-NITROANILINE | ND | 9.6 | 4.8 |
| 4-NITROPHENOL | ND | 19 | 4.8 |
| ACENAPHTHENE | ND | 9.6 | 4.8 |
| ACENAPHTHYLENE | ND | 9.6 | 4.8 |
| ANTHRACENE | ND | 9.6 | 4.8 |
| BENZO(A)ANTHRACENE | ND | 9.6 | 4.8 |
| BENZO(A)PYRENE | ND | 9.6 | 4.8 |
| BENZO(B)FLUORANTHENE | ND | 9.6 | 4.8 |
| BENZO(K)FLUORANTHENE | ND | 9.6 | 4.8 |
| BENZO(G,H,I)PERYLENE | ND | 9.6 | 4.8 |
| BIS(2-CHLOROETHOXY)METHANE | ND | 9.6 | 4.8 |
| BIS(2-CHLOROETHYL)ETHER | ND | 9.6 | 4.8 |
| BIS(2-CHLOROISOPROPYL)ETHER | ND | 9.6 | 4.8 |
| BIS(2-ETHYLHEXYL)PHTHALATE | ND | 19 | 9.6 |
| BUTYLBENZYLPHTHALATE | ND | 9.6 | 4.8 |
| CHRYSENE | ND | 9.6 | 4.8 |
| DI-N-BUTYLPHTHALATE | ND | 9.6 | 4.8 |
| DI-N-OCTYLPHTHALATE | ND | 9.6 | 4.8 |
| DIBENZO(A,H)ANTHRACENE | ND | 9.6 | 4.8 |
| DIBENZOFURAN | ND | 19 | 4.8 |
| DIETHYLPHTHALATE | ND | 19 | 5.8 |
| DIMETHYLPHTHALATE | ND | 9.6 | 4.8 |
| FLUORANTHENE | ND | 9.6 | 4.8 |
| FLUORENE | ND | 19 | 5.8 |
| HEXACHLOROBENZENE | ND | 9.6 | 4.8 |
| HEXACHLOROCYCLOPENTADIENE | ND | 9.6 | 4.8 |
| HEXACHLOROETHANE | ND | 9.6 | 4.8 |
| INDENO(1,2,3-CD)PYRENE | ND | 9.6 | 4.8 |
| ISOPHORONE | ND | 9.6 | 4.8 |
| N-NITROSO-DI-N-PROPYLAMINE | ND | 9.6 | 4.8 |
| N-NITROSODIPHENYLAMINE (2) | ND | 9.6 | 4.8 |
| NITROBENZENE | ND | 9.6 | 4.6 |
| PENTACHLOROPHENOL | ND | 19 | 9.6 |
| PHENANTHRENE | ND | 19 | 5.8 |
| PHENOL | ND | 9.6 | 4.8 |
| PYRENE | ND | 9.6 | 4.8 |
| 1,1'-BIPHENYL | ND | 9.6 | 4.8 |
| ACETOPHENONE | ND | 19 | 2.4 |
| ATRAZINE | ND | 9.6 | 9.6 |
| BENZALDEHYDE | ND | 9.6 | 4.8 |
| CAPROLACTAM | ND | 9.6 | 4.8 |
| CARBAZOLE | ND | 9.6 | 4.8 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| 2,4,6-TRIBROMOPHENOL | 74 | 25-134 |
| 2-FLUOROBIPHENYL | 66 | 43-125 |
| 2-FLUOROPHENOL | 58 | 25-125 |
| NITROBENZENE-D5 | 67 | 32-125 |
| PHENOL-D5 | 61 | 25-125 |
| TERPHENYL-D14 | 82 | 42-126 |

RL: Reporting Limit
 (1): Cannot be separated from 3-Methylphenol
 (2): Cannot be separated from Diphenylamine

SW 3520C/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : TETRA TECH FW, INC. Date Collected: 09/27/04
Project : MFA, SITE 1, CTO 86 Date Received: 09/29/04
Batch No. : 041157 Date Extracted: 09/30/04 13:00
Sample ID: 86-S1-045 Date Analyzed: 10/04/04 18:33
Lab Samp ID: 1157-03 Dilution Factor: 1
Lab File ID: RJX011 Matrix: WATER
Ext Btch ID: SVI034W % Moisture: NA
Calib. Ref.: RIX007 Instrument ID: T-042

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 2,4,5-TRICHLOROPHENOL | ND | 10 | 5 |
| 2,4,6-TRICHLOROPHENOL | ND | 10 | 5 |
| 2,4-DICHLOROPHENOL | ND | 10 | 5 |
| 2,4-DIMETHYLPHENOL | ND | 10 | 5 |
| 2,4-DINITROPHENOL | ND | 20 | 10 |
| 2,4-DINITROTOLUENE | ND | 20 | 10 |
| 2,6-DINITROTOLUENE | ND | 20 | 10 |
| 2-CHLORONAPHTHALENE | ND | 10 | 5 |
| 2-CHLOROPHENOL | ND | 10 | 5 |
| 2-METHYLNAPHTHALENE | ND | 10 | 5 |
| 2-METHYLPHENOL | ND | 20 | 5 |
| 2-NITROANILINE | ND | 10 | 5 |
| 2-NITROPHENOL | ND | 10 | 5 |
| 3,3'-DICHLOROBENZIDINE | ND | 10 | 5 |
| 3-NITROANILINE | ND | 10 | 5 |
| 4,6-DINITRO-2-METHYLPHENOL | ND | 20 | 10 |
| 4-BROMOPHENYL-PHENYL ETHER | ND | 20 | 5 |
| 4-CHLORO-3-METHYLPHENOL | ND | 10 | 5 |
| 4-CHLOROANILINE | ND | 10 | 5 |
| 4-CHLOROPHENYL-PHENYL ETHER | ND | 10 | 5 |
| 4-METHYLPHENOL (1) | ND | 10 | 5 |
| 4-NITROANILINE | ND | 10 | 5 |
| 4-NITROPHENOL | ND | 20 | 5 |
| ACENAPHTHENE | ND | 10 | 5 |
| ACENAPHTHYLENE | ND | 10 | 5 |
| ANTHRACENE | ND | 10 | 5 |
| BENZO(A)ANTHRACENE | ND | 10 | 5 |
| BENZO(A)PYRENE | ND | 10 | 5 |
| BENZO(B)FLUORANTHENE | ND | 10 | 5 |
| BENZO(K)FLUORANTHENE | ND | 10 | 5 |
| BENZO(G,H,I)PERYLENE | ND | 10 | 5 |
| BIS(2-CHLOROETHOXY)METHANE | ND | 10 | 5 |
| BIS(2-CHLOROETHYL)ETHER | ND | 10 | 5 |
| BIS(2-CHLOROISOPROPYL)ETHER | ND | 10 | 5 |
| BIS(2-ETHYLHEXYL)PHTHALATE | ND | 20 | 5 |
| BUTYLBENZYLPHTHALATE | ND | 10 | 5 |
| CHRYSENE | ND | 10 | 5 |
| DI-N-BUTYLPHTHALATE | ND | 10 | 5 |
| DI-N-OCTYLPHTHALATE | ND | 10 | 5 |
| DIBENZO(A,H)ANTHRACENE | ND | 10 | 5 |
| DIBENZO(F)ANTHRACENE | ND | 10 | 5 |
| DIETHYLPHTHALATE | ND | 20 | 5 |
| DIMETHYLPHTHALATE | ND | 10 | 5 |
| FLUORANTHENE | ND | 10 | 5 |
| FLUORENE | ND | 10 | 5 |
| HEXACHLOROBENZENE | ND | 20 | 5 |
| HEXACHLOROCYCLOPENTADIENE | ND | 10 | 5 |
| HEXACHLOROETHANE | ND | 10 | 5 |
| INDENO(1,2,3-CD)PYRENE | ND | 10 | 5 |
| ISOPHORONE | ND | 10 | 5 |
| N-NITROSO-DI-N-PROPYLAMINE | ND | 10 | 5 |
| N-NITROSODIPHENYLAMINE (2) | ND | 10 | 5 |
| NITROBENZENE | ND | 10 | 5 |
| PENTACHLOROPHENOL | ND | 20 | 5 |
| PHENANTHRENE | ND | 20 | 5 |
| PHENOL | ND | 10 | 5 |
| PYRENE | ND | 10 | 5 |
| 1,1'-BIPHENYL | ND | 10 | 5 |
| ACETOPHENONE | ND | 20 | 2 |
| ATRAZINE | ND | 10 | 5 |
| BENZALDEHYDE | ND | 10 | 5 |
| CAPROLACTAM | ND | 10 | 5 |
| CARBAZOLE | ND | 10 | 5 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| 2,4,6-TRIBROMOPHENOL | 83 | 25-134 |
| 2-FLUOROBIPHENYL | 71 | 43-125 |
| 2-FLUOROPHENOL | 65 | 25-125 |
| NITROBENZENE-D5 | 75 | 32-125 |
| PHENOL-D5 | 67 | 25-125 |
| TERPHENYL-D14 | 91 | 42-126 |

RL: Reporting Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

SW 3520C/8270C
 SEMI VOLATILE ORGANICS BY GC/MS

| | |
|-------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 09/27/04 |
| Project : MFA, SITE 1, CTO 86 | Date Received: 09/29/04 |
| Batch No. : 041157 | Date Extracted: 09/30/04 13:00 |
| Sample ID: 86-S1-047 | Date Analyzed: 10/04/04 19:09 |
| Lab Samp ID: I157-04 | Dilution Factor: 1 |
| Lab File ID: RJX012 | Matrix : WATER |
| Ext Btch ID: SVI034W | % Moisture : NA |
| Calib. Ref.: RIX007 | Instrument ID : T-042 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 2,4,5-TRICHLOROPHENOL | ND | 10 | 5 |
| 2,4,6-TRICHLOROPHENOL | ND | 10 | 5 |
| 2,4-DICHLOROPHENOL | ND | 10 | 5 |
| 2,4-DIMETHYLPHENOL | ND | 10 | 5 |
| 2,4-DINITROPHENOL | ND | 20 | 10 |
| 2,4-DINITROTOLUENE | ND | 20 | 10 |
| 2,6-DINITROTOLUENE | ND | 20 | 10 |
| 2-CHLORONAPHTHALENE | ND | 10 | 5 |
| 2-CHLOROPHENOL | ND | 10 | 5 |
| 2-METHYLNAPHTHALENE | ND | 10 | 5 |
| 2-METHYLPHENOL | ND | 10 | 5 |
| 2-NITROANILINE | ND | 20 | 10 |
| 2-NITROPHENOL | ND | 10 | 5 |
| 3,3'-DICHLOROBENZIDINE | ND | 10 | 5 |
| 3-NITROANILINE | ND | 10 | 5 |
| 4,6-DINITRO-2-METHYLPHENOL | ND | 20 | 10 |
| 4-BROMOPHENYL-PHENYL ETHER | ND | 20 | 10 |
| 4-CHLORO-3-METHYLPHENOL | ND | 10 | 5 |
| 4-CHLOROANILINE | ND | 10 | 5 |
| 4-CHLOROPHENYL-PHENYL ETHER | ND | 10 | 5 |
| 4-METHYLPHENOL (1) | ND | 10 | 5 |
| 4-NITROANILINE | ND | 10 | 5 |
| 4-NITROPHENOL | ND | 20 | 10 |
| ACENAPHTHENE | ND | 10 | 5 |
| ACENAPHTHYLENE | ND | 10 | 5 |
| ANTHRACENE | ND | 10 | 5 |
| BENZO(A)ANTHRACENE | ND | 10 | 5 |
| BENZO(A)PYRENE | ND | 10 | 5 |
| BENZO(B)FLUORANTHENE | ND | 10 | 5 |
| BENZO(K)FLUORANTHENE | ND | 10 | 5 |
| BENZO(G,H,I)PERYLENE | ND | 10 | 5 |
| BIS(2-CHLOROETHOXY)METHANE | ND | 10 | 5 |
| BIS(2-CHLOROETHYL)ETHER | ND | 10 | 5 |
| BIS(2-CHLOROISOPROPYL)ETHER | ND | 10 | 5 |
| BIS(2-ETHYLHEXYL)PHTHALATE | ND | 20 | 10 |
| BUTYLBENZYLPHTHALATE | ND | 10 | 5 |
| CHRYSENE | ND | 10 | 5 |
| DI-N-BUTYLPHTHALATE | ND | 10 | 5 |
| DI-N-OCTYLPHTHALATE | ND | 10 | 5 |
| DIBENZO(A,H)ANTHRACENE | ND | 10 | 5 |
| DIBENZOFURAN | ND | 10 | 5 |
| DIETHYLPHTHALATE | ND | 20 | 10 |
| DIMETHYLPHTHALATE | ND | 20 | 10 |
| FLUORANTHENE | ND | 10 | 5 |
| FLUORENE | ND | 10 | 5 |
| HEXACHLOROBENZENE | ND | 20 | 10 |
| HEXACHLOROCYCLOPENTADIENE | ND | 10 | 5 |
| HEXACHLOROETHANE | ND | 10 | 5 |
| INDENO(1,2,3-CD)PYRENE | ND | 10 | 5 |
| ISOPHORONE | ND | 10 | 5 |
| N-NITROSO-DI-N-PROPYLAMINE | ND | 10 | 5 |
| N-NITROSO-DIPHENYLAMINE (2) | ND | 10 | 5 |
| NITROBENZENE | ND | 10 | 5 |
| PENTACHLOROPHENOL | ND | 20 | 10 |
| PHENANTHRENE | ND | 20 | 10 |
| PHENOL | ND | 10 | 5 |
| PYRENE | ND | 10 | 5 |
| 1,1'-BIPHENYL | ND | 10 | 5 |
| ACETOPHENONE | ND | 10 | 5 |
| ATRAZINE | ND | 20 | 10 |
| BENZALDEHYDE | ND | 10 | 5 |
| CAPROLACTAM | ND | 10 | 5 |
| CARBAZOLE | ND | 10 | 5 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| 2,4,6-TRIBROMOPHENOL | 78 | 25-134 |
| 2-FLUOROBIPHENYL | 48 | 43-125 |
| 2-FLUOROPHENOL | 38 | 25-125 |
| NITROBENZENE-D5 | 43 | 32-125 |
| PHENOL-D5 | 44 | 25-125 |
| TERPHENYL-D14 | 87 | 42-126 |

RL: Reporting Limit
 (1): Cannot be separated from 3-Methylphenol
 (2): Cannot be separated from Diphenylamine

SW 3520C/8270C
 SEMI VOLATILE ORGANICS BY GC/MS

| | |
|------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 09/28/04 |
| Project : MFA SITE 1, CTO 86 | Date Received: 09/29/04 |
| Batch No. : 041157 | Date Extracted: 09/30/04 13:00 |
| Sample ID: 86-S1-048 | Date Analyzed: 10/04/04 20:54 |
| Lab Samp ID: 1157-05 | Dilution Factor: .95 |
| Lab File ID: RJX015 | Matrix : WATER |
| Ext Btch ID: SVI034W | % Moisture : NA |
| Calib. Ref.: RIX007 | Instrument ID : T-042 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 2,4,5-TRICHLOROPHENOL | ND | 9.5 | 4.8 |
| 2,4,6-TRICHLOROPHENOL | ND | 9.5 | 4.8 |
| 2,4-DICHLOROPHENOL | ND | 9.5 | 4.8 |
| 2,4-DIMETHYLPHENOL | ND | 9.5 | 4.8 |
| 2,4-DINITROPHENOL | ND | 19 | 9.5 |
| 2,4-DINITROTOLUENE | ND | 19 | 9.5 |
| 2,6-DINITROTOLUENE | ND | 19 | 5.7 |
| 2-CHLORONAPHTHALENE | ND | 9.5 | 4.8 |
| 2-CHLOROPHENOL | ND | 9.5 | 4.8 |
| 2-METHYLNAPHTHALENE | ND | 9.5 | 4.8 |
| 2-METHYLPHENOL | ND | 9.5 | 4.8 |
| 2-NITROANILINE | ND | 19 | 5.7 |
| 2-NITROPHENOL | ND | 9.5 | 4.8 |
| 3,3'-DICHLOROBENZIDINE | ND | 9.5 | 4.8 |
| 3-NITROANILINE | ND | 19 | 9.5 |
| 4,6-DINITRO-2-METHYLPHENOL | ND | 19 | 6.6 |
| 4-BROMOPHENYL-PHENYL ETHER | ND | 9.5 | 4.8 |
| 4-CHLORO-3-METHYLPHENOL | ND | 9.5 | 4.8 |
| 4-CHLOROANILINE | ND | 9.5 | 4.8 |
| 4-CHLOROPHENYL-PHENYL ETHER | ND | 9.5 | 4.8 |
| 4-METHYLPHENOL (1) | ND | 9.5 | 4.8 |
| 4-NITROANILINE | ND | 9.5 | 4.8 |
| 4-NITROPHENOL | ND | 19 | 4.8 |
| ACENAPHTHENE | ND | 9.5 | 4.8 |
| ACENAPHTHYLENE | ND | 9.5 | 4.8 |
| ANTHRACENE | ND | 9.5 | 4.8 |
| BENZO(A)ANTHRACENE | ND | 9.5 | 4.8 |
| BENZO(A)PYRENE | ND | 9.5 | 4.8 |
| BENZO(B)FLUORANTHENE | ND | 9.5 | 4.8 |
| BENZO(K)FLUORANTHENE | ND | 9.5 | 4.8 |
| BENZO(G,H,I)PERYLENE | ND | 9.5 | 4.8 |
| BIS(2-CHLOROETHOXY)METHANE | ND | 9.5 | 4.8 |
| BIS(2-CHLOROETHYL)ETHER | ND | 9.5 | 4.8 |
| BIS(2-CHLOROISOPROPYL)ETHER | ND | 19 | 4.8 |
| BIS(2-ETHYLHEXYL)PHTHALATE | ND | 19 | 9.5 |
| BUTYLBENZYLPHTHALATE | ND | 9.5 | 4.8 |
| CHRYSENE | ND | 9.5 | 4.8 |
| DI-N-BUTYLPHTHALATE | ND | 9.5 | 4.8 |
| DI-N-OCTYLPHTHALATE | ND | 9.5 | 4.8 |
| DIBENZO(A,H)ANTHRACENE | ND | 9.5 | 4.8 |
| DIBENZOFURAN | ND | 9.5 | 4.8 |
| DIETHYLPHTHALATE | ND | 19 | 5.7 |
| DIMETHYLPHTHALATE | ND | 19 | 4.8 |
| FLUORANTHENE | ND | 9.5 | 4.8 |
| FLUORENE | ND | 19 | 4.8 |
| HEXACHLOROBENZENE | ND | 19 | 5.7 |
| HEXACHLOROCYCLOPENTADIENE | ND | 9.5 | 4.8 |
| HEXACHLOROETHANE | ND | 9.5 | 4.8 |
| INDENO(1,2,3-CD)PYRENE | ND | 9.5 | 4.8 |
| ISOPHORONE | ND | 9.5 | 4.8 |
| N-NITROSO-DI-N-PROPYLAMINE | ND | 9.5 | 4.8 |
| N-NITROSDIPHENYLAMINE (2) | ND | 9.5 | 4.8 |
| NITROBENZENE | ND | 9.5 | 4.8 |
| PENTACHLOROPHENOL | ND | 19 | 9.5 |
| PHENANTHRENE | ND | 19 | 5.7 |
| PHENOL | ND | 9.5 | 4.8 |
| PYRENE | ND | 9.5 | 4.8 |
| 1,1'-BIPHENYL | ND | 9.5 | 4.8 |
| ACETOPHENONE | ND | 9.5 | 2.4 |
| ATRAZINE | ND | 19 | 9.5 |
| BENZALDEHYDE | ND | 9.5 | 4.8 |
| CAPROLACTAM | ND | 9.5 | 4.8 |
| CARBAZOLE | ND | 9.5 | 4.8 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| 2,4,6-TRIBROMOPHENOL | 68 | 25-134 |
| 2-FLUOROBIPHENYL | 58 | 43-125 |
| 2-FLUOROPHENOL | 49 | 25-125 |
| NITROBENZENE-D5 | 58 | 32-125 |
| PHENOL-D5 | 51 | 25-125 |
| TERPHENYL-D14 | 80 | 42-126 |

RL: Reporting Limit
 (1): Cannot be separated from 3-Methylphenol
 (2): Cannot be separated from Diphenylamine

SW 3520C/8270C
 SEMI VOLATILE ORGANICS BY GC/MS

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Client   : TETRA TECH FW, INC.      Date Collected: 09/28/04
Project  : MFA SITE 1, CTO 86      Date Received: 09/29/04
Batch No.: 041157                  Date Extracted: 10/05/04 17:00
Sample ID: 86-S1-049                Date Analyzed: 10/08/04 16:05
Lab Samp ID: I157-06R                Dilution Factor: .94
Lab File ID: RJX090                  Matrix: WATER
Ext Btch ID: SVJ004W                 % Moisture: NA
Calib. Ref.: RIX007                  Instrument ID: T-D42
=====
  
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| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 2,4,5-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4,6-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DIMETHYLPHENOL | ND | 9.4 | 4.7 |
| 2,4-DINITROPHENOL | ND | 19 | 9.4 |
| 2,4-DINITROTOLUENE | ND | 19 | 9.4 |
| 2,6-DINITROTOLUENE | ND | 19 | 5.6 |
| 2-CHLORONAPHTHALENE | ND | 9.4 | 4.7 |
| 2-CHLOROPHENOL | ND | 9.4 | 4.7 |
| 2-METHYLNAPHTHALENE | ND | 9.4 | 4.7 |
| 2-METHYLPHENOL | ND | 9.4 | 4.7 |
| 2-NITROANILINE | ND | 19 | 5.6 |
| 2-NITROPHENOL | ND | 9.4 | 4.7 |
| 3,3'-DICHLOROBENZIDINE | ND | 9.4 | 4.7 |
| 3-NITROANILINE | ND | 19 | 9.4 |
| 4,6-DINITRO-2-METHYLPHENOL | ND | 19 | 6.6 |
| 4-BROMOPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-CHLORO-3-METHYLPHENOL | ND | 9.4 | 4.7 |
| 4-CHLORODANILINE | ND | 9.4 | 4.7 |
| 4-CHLOROPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-METHYLPHENOL (1) | ND | 9.4 | 4.7 |
| 4-NITROANILINE | ND | 9.4 | 4.7 |
| 4-NITROPHENOL | ND | 19 | 4.7 |
| ACENAPHTHENE | ND | 9.4 | 4.7 |
| ACENAPHTHYLENE | ND | 9.4 | 4.7 |
| ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)PYRENE | ND | 9.4 | 4.7 |
| BENZO(B)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(K)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(G,H,I)PERYLENE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHOXY)METHANE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-CHLOROISOPROPYL)ETHER | ND | 19 | 9.4 |
| BIS(2-ETHYLHEXYL)PHTHALATE | ND | 9.4 | 4.7 |
| BUTYLBENZYLPHTHALATE | ND | 9.4 | 4.7 |
| CHRYSENE | ND | 9.4 | 4.7 |
| DI-N-BUTYLPHTHALATE | ND | 9.4 | 4.7 |
| DI-N-OCTYLPHTHALATE | ND | 9.4 | 4.7 |
| DIBENZO(A,H)ANTHRACENE | ND | 9.4 | 4.7 |
| DIBENZOFURAN | ND | 9.4 | 4.7 |
| DIETHYLPHTHALATE | ND | 19 | 5.6 |
| DIMETHYLPHTHALATE | ND | 19 | 4.7 |
| FLUORANTHENE | ND | 9.4 | 4.7 |
| FLUDRENE | ND | 9.4 | 4.7 |
| HEXACHLOROBENZENE | ND | 19 | 5.6 |
| HEXACHLOROCYCLOPENTADIENE | ND | 9.4 | 4.7 |
| HEXACHLOROETHANE | ND | 9.4 | 4.7 |
| INDENO(1,2,3-CD)PYRENE | ND | 9.4 | 4.7 |
| ISOPHORONE | ND | 9.4 | 4.7 |
| N-NITROSO-DI-N-PROPYLAMINE | ND | 9.4 | 4.7 |
| N-NITROSO-DIPHENYLAMINE (2) | ND | 9.4 | 4.7 |
| NITROBENZENE | ND | 9.4 | 4.7 |
| PENTACHLOROPHENOL | ND | 19 | 9.4 |
| PHENANTHRENE | ND | 19 | 5.6 |
| PHENOL | ND | 9.4 | 4.7 |
| PYRENE | ND | 9.4 | 4.7 |
| 1,1'-BIPHENYL | ND | 9.4 | 4.7 |
| ACETOPHENONE | ND | 9.4 | 2.3 |
| ATRAZINE | ND | 19 | 9.4 |
| BENZALDEHYDE | ND | 9.4 | 4.7 |
| CAPROLACTAM | ND | 9.4 | 4.7 |
| CARBAZOLE | ND | 9.4 | 4.7 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| 2,4,6-TRIBROMOPHENOL | 67 | 25-134 |
| 2-FLUOROBIPHENYL | 63 | 43-125 |
| 2-FLUOROPHENOL | 56 | 25-125 |
| NITROBENZENE-D5 | 69 | 32-125 |
| PHENOL-D5 | 61 | 25-125 |
| TERPHENYL-D14 | 88 | 42-126 |

RL: Reporting Limit
 (1): Cannot be separated from 3-Methylphenol
 (2): Cannot be separated from Diphenylamine

SW 3520C/8270C
 SEMI VOLATILE ORGANICS BY GC/MS

| | |
|-------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 09/28/04 |
| Project : MFA, SITE 1, CTO 86 | Date Received: 09/29/04 |
| Batch No. : 041157 | Date Extracted: 09/30/04 13:00 |
| Sample ID: 86-S1-D50 | Date Analyzed: 10/04/04 22:04 |
| Lab Samp ID: I157-07 | Dilution Factor: .95 |
| Lab File ID: RJX017 | Matrix : WATER |
| Ext Btch ID: SVI034W | % Moisture : NA |
| Calib. Ref.: RIX007 | Instrument ID : T-042 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 2,4,5-TRICHLOROPHENOL | ND | 9.5 | 4.8 |
| 2,4,6-TRICHLOROPHENOL | ND | 9.5 | 4.8 |
| 2,4-DICHLOROPHENOL | ND | 9.5 | 4.8 |
| 2,4-DIMETHYLPHENOL | ND | 9.5 | 4.8 |
| 2,4-DINITROPHENOL | ND | 10 | 9.5 |
| 2,4-DINITROTOLUENE | ND | 10 | 9.5 |
| 2,6-DINITROTOLUENE | ND | 10 | 5.7 |
| 2-CHLORONAPHTHALENE | ND | 9.5 | 4.8 |
| 2-CHLOROPHENOL | ND | 9.5 | 4.8 |
| 2-METHYLNAPHTHALENE | ND | 9.5 | 4.8 |
| 2-METHYLPHENOL | ND | 9.5 | 4.8 |
| 2-NITROANILINE | ND | 10 | 5.7 |
| 2-NITROPHENOL | ND | 9.5 | 4.8 |
| 3,3'-DICHLOROBENZIDINE | ND | 9.5 | 4.8 |
| 3-NITROANILINE | ND | 10 | 9.5 |
| 4,6-DINITRO-2-METHYLPHENOL | ND | 10 | 6.6 |
| 4-BROMOPHENYL-PHENYL ETHER | ND | 9.5 | 4.8 |
| 4-CHLORO-3-METHYLPHENOL | ND | 9.5 | 4.8 |
| 4-CHLOROANILINE | ND | 9.5 | 4.8 |
| 4-CHLOROPHENYL-PHENYL ETHER | ND | 9.5 | 4.8 |
| 4-METHYLPHENOL (1) | ND | 9.5 | 4.8 |
| 4-NITROANILINE | ND | 10 | 4.8 |
| 4-NITROPHENOL | ND | 10 | 4.8 |
| ACENAPHTHENE | ND | 9.5 | 4.8 |
| ACENAPHTHYLENE | ND | 9.5 | 4.8 |
| ANTHRACENE | ND | 9.5 | 4.8 |
| BENZO(A)ANTHRACENE | ND | 9.5 | 4.8 |
| BENZO(A)PYRENE | ND | 9.5 | 4.8 |
| BENZO(B)FLUORANTHENE | ND | 9.5 | 4.8 |
| BENZO(K)FLUORANTHENE | ND | 9.5 | 4.8 |
| BENZO(G,H,I)PERYLENE | ND | 9.5 | 4.8 |
| BIS(2-CHLOROETHOXY)METHANE | ND | 9.5 | 4.8 |
| BIS(2-CHLOROETHYL)ETHER | ND | 9.5 | 4.8 |
| BIS(2-CHLOROISOPROPYL)ETHER | ND | 10 | 4.8 |
| BIS(2-ETHYLHEXYL)PHTHALATE | ND | 9.5 | 4.8 |
| BUTYLBENZYLPHTHALATE | ND | 9.5 | 4.8 |
| CHRYSENE | ND | 9.5 | 4.8 |
| DI-N-BUTYLPHTHALATE | ND | 9.5 | 4.8 |
| DI-N-OCTYLPHTHALATE | ND | 9.5 | 4.8 |
| DIBENZO(A,H)ANTHRACENE | ND | 9.5 | 4.8 |
| DIBENZOFURAN | ND | 9.5 | 4.8 |
| DIETHYLPHTHALATE | ND | 10 | 5.7 |
| DIMETHYLPHTHALATE | ND | 10 | 4.8 |
| FLUORANTHENE | ND | 9.5 | 4.8 |
| FLUORENE | ND | 10 | 4.8 |
| HEXACHLOROBENZENE | ND | 9.5 | 2.8 |
| HEXACHLOROCYCLOPENTADIENE | ND | 9.5 | 4.8 |
| HEXACHLOROETHANE | ND | 9.5 | 4.8 |
| INDENO(1,2,3-CD)PYRENE | ND | 9.5 | 4.8 |
| ISOPHORONE | ND | 9.5 | 4.8 |
| N-NITROSO-DI-N-PROPYLAMINE | ND | 9.5 | 4.8 |
| N-NITROSODIPHENYLAMINE (2) | ND | 9.5 | 4.8 |
| NITROBENZENE | ND | 10 | 4.8 |
| PENTACHLOROPHENOL | ND | 10 | 9.5 |
| PHENANTHRENE | ND | 10 | 5.7 |
| PHENOL | ND | 9.5 | 4.8 |
| PYRENE | ND | 9.5 | 4.8 |
| 1,1'-BIPHENYL | ND | 9.5 | 4.8 |
| ACETOPHENONE | ND | 9.5 | 6.4 |
| ATRAZINE | ND | 10 | 9.5 |
| BENZALDEHYDE | ND | 9.5 | 4.8 |
| CAPROLACTAM | ND | 9.5 | 4.8 |
| CARBAZOLE | ND | 9.5 | 4.8 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| 2,4,6-TRIBROMOPHENOL | 73 | 25-134 |
| 2-FLUOROBIPHENYL | 65 | 43-125 |
| 2-FLUOROPHENOL | 56 | 25-125 |
| NITROBENZENE-D5 | 66 | 32-125 |
| PHENOL-D5 | 61 | 25-125 |
| TERPHENYL-D14 | 85 | 42-126 |

RL: Reporting Limit
 (1): Cannot be separated from 3-Methylphenol
 (2): Cannot be separated from Diphenylamine

SW 3520C/8270C
 SEMI VOLATILE ORGANICS BY GC/MS

| | |
|-------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 09/28/04 |
| Project : MFA, SITE 1, CTO 86 | Date Received: 09/29/04 |
| Batch No. : 041157 | Date Extracted: 09/30/04 13:00 |
| Sample ID: 86-S1-051 | Date Analyzed: 10/04/04 22:39 |
| Lab Samp ID: I157-08 | Dilution Factor: 95 |
| Lab File ID: RJX018 | Matrix: WATER |
| Ext Btch ID: SVI034W | % Moisture: NA |
| Calib. Ref.: RIX007 | Instrument ID: T-042 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 2,4,5-TRICHLOROPHENOL | ND | 9.5 | 4.8 |
| 2,4,6-TRICHLOROPHENOL | ND | 9.5 | 4.8 |
| 2,4-DICHLOROPHENOL | ND | 9.5 | 4.8 |
| 2,4-DIMETHYLPHENOL | ND | 9.5 | 4.8 |
| 2,4-DINITROPHENOL | ND | 9.5 | 4.8 |
| 2,4-DINITROTOLUENE | ND | 9.5 | 4.8 |
| 2,6-DINITROTOLUENE | ND | 9.5 | 4.8 |
| 2-CHLORONAPHTHALENE | ND | 9.5 | 4.8 |
| 2-CHLOROPHENOL | ND | 9.5 | 4.8 |
| 2-METHYLNAPHTHALENE | ND | 9.5 | 4.8 |
| 2-METHYLPHENOL | ND | 9.5 | 4.8 |
| 2-NITROANILINE | ND | 9.5 | 4.8 |
| 2-NITROPHENOL | ND | 9.5 | 4.8 |
| 3,4-DICHLOROBENZIDINE | ND | 9.5 | 4.8 |
| 3-NITROANILINE | ND | 9.5 | 4.8 |
| 4,6-DINITRO-2-METHYLPHENOL | ND | 9.5 | 4.8 |
| 4-BROMOPHENYL-PHENYL ETHER | ND | 9.5 | 4.8 |
| 4-CHLORO-3-METHYLPHENOL | ND | 9.5 | 4.8 |
| 4-CHLOROANILINE | ND | 9.5 | 4.8 |
| 4-CHLOROPHENYL-PHENYL ETHER | ND | 9.5 | 4.8 |
| 4-METHYLPHENOL (1) | ND | 9.5 | 4.8 |
| 4-NITROANILINE | ND | 9.5 | 4.8 |
| 4-NITROPHENOL | ND | 9.5 | 4.8 |
| ACENAPHTHENE | ND | 9.5 | 4.8 |
| ACENAPHTHYLENE | ND | 9.5 | 4.8 |
| ANTHRACENE | ND | 9.5 | 4.8 |
| BENZO(A)ANTHRACENE | ND | 9.5 | 4.8 |
| BENZO(A)PYRENE | ND | 9.5 | 4.8 |
| BENZO(B)FLUORANTHENE | ND | 9.5 | 4.8 |
| BENZO(K)FLUORANTHENE | ND | 9.5 | 4.8 |
| BENZO(G,H,I)PERYLENE | ND | 9.5 | 4.8 |
| BIS(2-CHLOROETHOXY)METHANE | ND | 9.5 | 4.8 |
| BIS(2-CHLOROETHYL)ETHER | ND | 9.5 | 4.8 |
| BIS(2-CHLOROISOPROPYL)ETHER | ND | 9.5 | 4.8 |
| BIS(2-ETHYLHEXYL)PHTHALATE | ND | 9.5 | 4.8 |
| BUTYLBENZYLPHTHALATE | ND | 9.5 | 4.8 |
| CHRYSENE | ND | 9.5 | 4.8 |
| DI-N-BUTYLPHTHALATE | ND | 9.5 | 4.8 |
| DI-N-OCTYLPHTHALATE | ND | 9.5 | 4.8 |
| DIBENZO(A,H)ANTHRACENE | ND | 9.5 | 4.8 |
| DIBENZOFURAN | ND | 9.5 | 4.8 |
| DIETHYLPHTHALATE | ND | 9.5 | 4.8 |
| DIMETHYLPHTHALATE | ND | 9.5 | 4.8 |
| FLUORANTHENE | ND | 9.5 | 4.8 |
| FLUORENE | ND | 9.5 | 4.8 |
| HEXACHLOROBENZENE | ND | 9.5 | 4.8 |
| HEXACHLOROCYCLOPENTADIENE | ND | 9.5 | 4.8 |
| HEXACHLOROETHANE | ND | 9.5 | 4.8 |
| INDENO(1,2,3-CD)PYRENE | ND | 9.5 | 4.8 |
| ISOPHORONE | ND | 9.5 | 4.8 |
| N-NITROSO-DI-N-PROPYLAMINE | ND | 9.5 | 4.8 |
| N-NITROSODIPHENYLAMINE (2) | ND | 9.5 | 4.8 |
| NITROBENZENE | ND | 9.5 | 4.8 |
| PENTACHLOROPHENOL | ND | 9.5 | 4.8 |
| PHENANTHRENE | ND | 9.5 | 4.8 |
| PHENOL | ND | 9.5 | 4.8 |
| PYRENE | ND | 9.5 | 4.8 |
| 1,1'-BIPHENYL | ND | 9.5 | 4.8 |
| ACETOPHENONE | ND | 9.5 | 4.8 |
| ATRAZINE | ND | 9.5 | 4.8 |
| BENZALDEHYDE | ND | 9.5 | 4.8 |
| CAPROLACTAM | ND | 9.5 | 4.8 |
| CARBAZOLE | ND | 9.5 | 4.8 |
| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT | |
| 2,4,6-TRIBROMOPHENOL | 72 | 25-134 | |
| 2-FLUOROBIPHENYL | 63 | 43-125 | |
| 2-FLUOROPHENOL | 55 | 25-125 | |
| NITROBENZENE-D5 | 67 | 32-125 | |
| PHENOL-D5 | 57 | 25-125 | |
| TERPHENYL-D14 | 80 | 42-126 | |

RL: Reporting Limit
 (1): Cannot be separated from 3-Methylphenol
 (2): Cannot be separated from Diphenylamine

CASE NARRATIVE

CLIENT: TETRA TECH FW, INC.

PROJECT: MFA, SITE 1, CTO 86

SDG: 04I157

**SW7470A
DISSOLVED MERCURY BY COLD VAPOR**

Eight (8) water samples were received on 09/29/04 for Dissolved Mercury analysis by Method 7470A in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW846, 3rd edition.

1. Holding Time

Analysis met the holding time criteria.

2. Method Blank

Method blank was free of contamination at the reporting limit.

3. Lab Control Sample/Lab Control Sample Duplicate

Lab control results were within the QC limit.

4. Serial Dilution/Post Analytical Spike

Sample I157-04 was analyzed for serial dilution and post analytical spike. All QC requirements were met.

5. Matrix Spike/Matrix Spike Duplicate

Sample I157-04 was spiked. %Recoveries were within QC limit.

6. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criteria were met. Samples were diluted 20 times due to matrix interference.

METHOD 7470A
DISSOLVED MERCURY BY COLD VAPOR

Client : TETRA TECH FW, INC.
Project : MFA, SITE 1, CTO 86
Batch No. : 041157

Matrix : WATER
Instrument ID : T1047

| SAMPLE ID | EMAX SAMPLE ID | RESULTS (ug/L) | DLF | MOIST | RL (ug/L) | MDL (ug/L) | Analysis DATE/TIME | Extraction DATE/TIME | LFD | CAL REF | PREP BATCH | Collection DATE/TIME | Received DATE/TIME |
|--------------|-------------------|-------------------|-----|-------|--------------|---------------|-----------------------|-------------------------|------------|------------|------------|-------------------------|-----------------------|
| MBLK1W | HGI059JB | ND | 1 | NA | -2 | -1 | 10/01/0414:24 | 09/30/0416:00 | M47J002010 | M47J002008 | HGI059J | NA | 09/30/04 |
| LCS1W | HGI059WL | 5.04 | 1 | NA | -2 | -1 | 10/01/0414:26 | 09/30/0416:00 | M47J002011 | M47J002008 | HGI059J | NA | 09/30/04 |
| LCS1W | HGI059WC | 5.1 | 1 | NA | -2 | -1 | 10/01/0414:29 | 09/30/0416:00 | M47J002012 | M47J002008 | HGI059J | NA | 09/30/04 |
| 86-S1-047AS | I157-04A | 35.2 | 20 | NA | 4 | 2 | 10/01/0414:31 | 09/30/0416:00 | M47J002013 | M47J002008 | HGI059J | 09/27/04 | 09/29/04 |
| 86-S1-047 | I157-04 | ND | 20 | NA | 4 | 2 | 10/01/0414:33 | 09/30/0416:00 | M47J002014 | M47J002008 | HGI059J | 09/27/04 | 09/29/04 |
| 86-S1-047DL | I157-04T | ND | 100 | NA | 20 | 10 | 10/01/0414:35 | 09/30/0416:00 | M47J002015 | M47J002008 | HGI059J | 09/27/04 | 09/29/04 |
| 86-S1-047MS | I157-04M | 7.78 | 20 | NA | 4 | 2 | 10/01/0414:37 | 09/30/0416:00 | M47J002016 | M47J002008 | HGI059J | 09/27/04 | 09/29/04 |
| 86-S1-047MSD | I157-04S | 7.46 | 20 | NA | 4 | 2 | 10/01/0414:39 | 09/30/0416:00 | M47J002017 | M47J002008 | HGI059J | 09/27/04 | 09/29/04 |
| 86-S1-043 | I157-01 | ND | 20 | NA | 4 | 2 | 10/01/0414:42 | 09/30/0416:00 | M47J002018 | M47J002008 | HGI059J | 09/27/04 | 09/29/04 |
| 86-S1-044 | I157-02 | ND | 20 | NA | 4 | 2 | 10/01/0414:44 | 09/30/0416:00 | M47J002019 | M47J002008 | HGI059J | 09/27/04 | 09/29/04 |
| 86-S1-045 | I157-03 | ND | 20 | NA | 4 | 2 | 10/01/0414:50 | 09/30/0416:00 | M47J002022 | M47J002020 | HGI059J | 09/28/04 | 09/29/04 |
| 86-S1-048 | I157-05 | ND | 20 | NA | 4 | 2 | 10/01/0414:53 | 09/30/0416:00 | M47J002023 | M47J002020 | HGI059J | 09/28/04 | 09/29/04 |
| 86-S1-049 | I157-06 | ND | 20 | NA | 4 | 2 | 10/01/0414:55 | 09/30/0416:00 | M47J002024 | M47J002020 | HGI059J | 09/28/04 | 09/29/04 |
| 86-S1-050 | I157-07 | ND | 20 | NA | 4 | 2 | 10/01/0414:57 | 09/30/0416:00 | M47J002025 | M47J002020 | HGI059J | 09/28/04 | 09/29/04 |
| 86-S1-051 | I157-08 | ND | 20 | NA | 4 | 2 | 10/01/0415:00 | 09/30/0416:00 | M47J002026 | M47J002020 | HGI059J | 09/28/04 | 09/29/04 |

RL: Reporting Limit

7004

ORIGINAL

LDC Report# 12637A2

**Laboratory Data Consultants, Inc.
Data Validation Report**

Project/Site Name: Moffett Airfield, Site 1, CTO 86
Collection Date: September 27 through September 28, 2004
LDC Report Date: October 21, 2004
Matrix: Water
Parameters: Semivolatiles
Validation Level: EPA Level III & IV
Laboratory: EMAX Laboratories, Inc.
Sample Delivery Group (SDG): 04157

Sample Identification

86-S1-043**
86-S1-044
86-S1-045
86-S1-047
86-S1-048
86-S1-049**
86-S1-050
86-S1-051
86-S1-047MS
86-S1-047MSD

****Indicates sample underwent EPA Level IV review**

Introduction

This data review covers 10 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8270C for Semivolatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XVI.

Samples indicated by a double asterisk on the front cover underwent a EPA Level IV review. A EPA Level III review was performed on all of the other samples. Raw data were not evaluated for the samples reviewed by Level III criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

The mean percent relative standard deviation (%RSD) for all compounds was less than or equal to 15.0% and less than or equal to 30.0% for selected individual compounds.

A curve fit, based on the initial calibration, was established for quantitation for selected compounds. The coefficient of determination (r^2) was greater than or equal to 0.990.

Average relative response factors (RRF) for all system performance check compounds (SPCCs) were within method criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

For the purposes of technical evaluation, all compounds were evaluated against the 25.0% (%D) National Functional Guideline criteria. Unless noted above, all compounds were within the validation criteria with the following exceptions:

| Date | Compound | %D | Associated Samples | Flag | A or P |
|---------|-------------------|------|-----------------------|-----------------------------------------|--------|
| 10/8/04 | 2,4-Dinitrophenol | 35.0 | 86-S1-049** MBLK2W | J (all detects) UJ (all non-detects) | A |

Initial calibration verification (ICV) percent differences (%D) were less than or equal to 20.0% for all compounds with the following exceptions:

| Date | Compound | %D | Associated Samples | Flag | A or P |
|--------|------------------------|------|---------------------------|-----------------------------------------|--------|
| 9/1/04 | N-Nitrosodiphenylamine | 22.1 | All samples in SDG 041157 | J (all detects) UJ (all non-detects) | A |

All of the continuing calibration RRF values for all system performance check compounds (SPCCs) were within method criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No semivolatile contaminants were found in the method blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

| LCS ID (Associated Samples) | Compound | LCS %R (Limits) | LCSD %R (Limits) | RPD (Limits) | Flag | A or P |
|------------------------------------------------------------------------------------------------------------------|---------------|--------------------|---------------------|------------------|-----------------------------------------|--------|
| LCS/D1W (86-S1-043** 86-S1-044 86-S1-045 86-S1-047 86-S1-048 86-S1-050 86-S1-051 MBLK1W) | 4-Nitrophenol | - | - | 51 (≤ 30) | J (all detects) UJ (all non-detects) | P |
| | Phenol | - | - | 54 (≤ 30) | J (all detects) UJ (all non-detects) | |

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XII. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XV. Overall Assessment

Data flags have been summarized at the end of the report.

XVI. Field Duplicates

Samples 86-S1-048 and 86-S1-049** were identified as field duplicates. No semivolatiles were detected in any of the samples.

XVII. Field Blanks

No field blanks were identified in this SDG.

Moffett Airfield, Site 1, CTO 86
Semivolatiles - Data Qualification Summary - SDG 04I157

| SDG | Sample | Compound | Flag | A or P | Reason |
|--------|----------------------------------------------------------------------------------------------------------|-----------------------------|------------------------------------------------------------------------------------|--------|----------------------------------|
| 04I157 | 86-S1-049** | 2,4-Dinitrophenol | J (all detects) UJ (all non-detects) | P | Continuing calibration (%D) |
| 04I157 | 86-S1-043** 86-S1-044 86-S1-045 86-S1-047 86-S1-048 86-S1-049** 86-S1-050 86-S1-051 | N-Nitrosodiphenylamine | J (all detects) UJ (all non-detects) | A | Continuing calibration (ICV %D) |
| 04I157 | 86-S1-043** 86-S1-044 86-S1-045 86-S1-047 86-S1-048 86-S1-050 86-S1-051 | 4-Nitrophenol Phenol | J (all detects) UJ (all non-detects) J (all detects) UJ (all non-detects) | P | Laboratory control samples (RPD) |

Moffett Airfield, Site 1, CTO 86
Semivolatiles - Laboratory Blank Data Qualification Summary - SDG 04I157

No Sample Data Qualified in this SDG

ORIGINAL

LDC Report# 12637A4

**Laboratory Data Consultants, Inc.
Data Validation Report**

Project/Site Name: Moffett Airfield, Site 1, CTO 86

Collection Date: September 28, 2004

LDC Report Date: October 28, 2004

Matrix: Water

Parameters: Dissolved Mercury

Validation Level: EPA Level III & IV

Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 04I157

Sample Identification

86-S1-043**
86-S1-044
86-S1-045
86-S1-047
86-S1-048
86-S1-049**
86-S1-050
86-S1-051
86-S1-047MS
86-S1-047MSD

**Indicates sample underwent EPA Level IV review

Introduction

This data review covers 10 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 7470A for Dissolved Mercury.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (February 1994) as there are no current guidelines for the method stated above.

A table summarizing all data qualification flags is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from specified protocols or is of technical advisory nature.

Blanks are summarized in Section III.

Field duplicates are summarized in Section XIII.

Samples indicated by a double asterisk on the front cover underwent a EPA Level IV review. A EPA Level III review was performed on all of the other samples. Raw data were not evaluated for the samples reviewed by Level III criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UU Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

An initial calibration was performed.

The frequency and analysis criteria of the initial calibration verification (ICV) and continuing calibration verification (CCV) were met.

III. Blanks

Method blanks were reviewed for each matrix as applicable.

Data qualification by the initial, continuing and preparation blanks (ICB/CCB/PBs) was based on the maximum contaminant concentration in the ICB/CCB/PBs in the analysis of each analyte. No contaminant concentrations were found in the initial, continuing and preparation blanks.

IV. ICP Interference Check Sample (ICS) Analysis

ICP interference check sample was not required by the method.

V. Matrix Spike Analysis

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VI. Duplicate Sample Analysis

The laboratory has indicated that there were no duplicate (DUP) analyses specified for the samples in this SDG, and therefore duplicate analyses were not performed for this SDG.

VII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Internal Standards

ICP-MS was not utilized in this SDG.

IX. Furnace Atomic Absorption QC

Graphite furnace atomic absorption was not utilized in this SDG.

X. ICP Serial Dilution

ICP serial dilution was not required by the method.

XI. Sample Result Verification

All sample result verifications met validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XII. Overall Assessment of Data

Data flags have been summarized at the end of this report.

XIII. Field Duplicates

Samples 86-S1-048 and 86-S1-049** were identified as field duplicates. No dissolved mercury was detected in any of the samples.

XIV. Field Blanks

No field blanks were identified in this SDG.

Moffett Airfield, Site 1, CTO 86

Dissolved Mercury - Data Qualification Summary - SDG 04I157

No Sample Data Qualified in this SDG

Moffett Airfield, Site 1, CTO 86

Dissolved Mercury - Laboratory Blank Data Qualification Summary - SDG 04I157

No Sample Data Qualified in this SDG



NUMBER 05363

CHAIN-OF-CUSTODY RECORD

[illegible]

White - Laboratory; Pink - Laboratory; Canary - Project File; Manila - Data Management

0015/50



LABORATORIES, INC.

1835 W. 205th Street
Torrance, CA 90501
Tel: (310) 618-8889
Fax: (310) 618-0818

Date: 10-07-2004
EMAX Batch No.: 041171

Attn: Lynn Jefferson

Tetra Tech FW, Inc.
1940 E Deere Ave, Suite 200
Santa Ana CA 92705

Subject: Laboratory Report
Project: MFA, Site 1, CTO 86

Enclosed is the Laboratory report for samples received on
09/30/04. The data reported include :

| Sample ID | Control # | Col Date | Matrix | Analysis |
|-----------|-----------|----------|--------|----------------------------------------------------|
| 86-S1-052 | I171-01 | 09/28/04 | WATER | MERCURY DISSOLVED SEMIVOLATILE ORGANICS BY GCMS |
| 86-S1-053 | I171-02 | 09/28/04 | WATER | MERCURY DISSOLVED SEMIVOLATILE ORGANICS BY GCMS |
| 86-S1-054 | I171-03 | 09/28/04 | WATER | MERCURY DISSOLVED SEMIVOLATILE ORGANICS BY GCMS |
| 86-S1-055 | I171-04 | 09/28/04 | WATER | MERCURY DISSOLVED SEMIVOLATILE ORGANICS BY GCMS |

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning
these results.

Sincerely yours,

Kam Y. Pang, Ph.D.
Laboratory Director

CASE NARRATIVE

CLIENT: TETRA TECH FW, INC.

PROJECT: MFA, SITE 1, CTO 86

SDG: 04I171

**SW 3520C/8270C
SEMI VOLATILE ORGANICS BY GC/MS**

Four (4) water samples were received on 09/30/04 for Semi Volatile Organic analysis by Method 3520C/8270C in accordance with USEPA SW846, 3rd ed.

1. Holding Time

Analytical holding time was met.

2. Tuning and Calibration

Tuning and calibration were carried out at 12-hour interval. All QC requirements were met.

3. Method Blank

Method blank was free of contamination at the reporting limit.

4. Surrogate Recovery

Recoveries were within QC limit.

5. Lab Control Sample/Lab Control Sample Duplicate

Recoveries were within QC limit. RPDs of two analytes were above QC.

6. Matrix Spike/Matrix Spike Duplicate

No MS/MSD sample was designated in this SDG.

7. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criteria were met.

SW 3520C/8270C
 SEMI VOLATILE ORGANICS BY GC/MS

| | |
|------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 09/28/04 |
| Project : MFA SITE 1, CTO 86 | Date Received: 09/30/04 |
| Batch No. : 041171 | Date Extracted: 09/30/04 13:00 |
| Sample ID: 86-S1-052 | Date Analyzed: 10/04/04 23:14 |
| Lab Samp ID: I171-01 | Dilution Factor: .94 |
| Lab File ID: RJX019 | Matrix : WATER |
| Ext Btch ID: SVI034W | % Moisture : NA |
| Calib. Ref.: RIX007 | Instrument ID : T-042 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 2,4,5-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4,6-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 5,4-DICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DIMETHYLPHENOL | ND | 9.4 | 4.7 |
| 2,4-DINITROPHENOL | ND | 19 | 9.4 |
| 2,4-DINITROTOLUENE | ND | 19 | 9.4 |
| 2,6-DINITROTOLUENE | ND | 19 | 5.6 |
| 2-CHLORONAPHTHALENE | ND | 9.4 | 4.7 |
| 2-CHLOROPHENOL | ND | 9.4 | 4.7 |
| 2-METHYLNAPHTHALENE | ND | 9.4 | 4.7 |
| 2-METHYLPHENOL | ND | 9.4 | 4.6 |
| 2-NITROANILINE | ND | 19 | 5.6 |
| 2-NITROPHENOL | ND | 9.4 | 4.7 |
| 3,3'-DICHLOROBENZIDINE | ND | 9.4 | 4.7 |
| 3-NITROANILINE | ND | 19 | 9.4 |
| 4,6-DINITRO-2-METHYLPHENOL | ND | 19 | 6.6 |
| 4-BROMOPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-CHLORO-3-METHYLPHENOL | ND | 9.4 | 4.7 |
| 4-CHLOROANILINE | ND | 9.4 | 4.7 |
| 4-CHLOROPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-METHYLPHENDL (1) | ND | 9.4 | 4.7 |
| 4-NITROANILINE | ND | 9.4 | 4.7 |
| 4-NITROPHENOL | ND | 19 | 4.7 |
| ACENAPHTHENE | ND | 9.4 | 4.7 |
| ACENAPHTHYLENE | ND | 9.4 | 4.7 |
| ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)PYRENE | ND | 9.4 | 4.7 |
| BENZO(B)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(K)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(G,H,I)PERYLENE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHOXY)METHANE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-CHLOROISOPROPYL)ETHER | ND | 19 | 9.4 |
| BIS(2-ETHYLHEXYL)PHTHALATE | ND | 9.4 | 4.7 |
| BUTYLBENZYLPHTHALATE | ND | 9.4 | 4.7 |
| CHRYSENE | ND | 9.4 | 4.7 |
| DI-N-BUTYLPHTHALATE | ND | 9.4 | 4.7 |
| DI-N-OCTYLPHTHALATE | ND | 9.4 | 4.7 |
| DIBENZO(A,H)ANTHRACENE | ND | 9.4 | 4.7 |
| DIBENZOFURAN | ND | 9.4 | 4.7 |
| DIETHYLPHTHALATE | ND | 19 | 5.6 |
| DIMETHYLPHTHALATE | ND | 19 | 4.7 |
| FLUORANTHENE | ND | 9.4 | 4.7 |
| FLUORENE | ND | 19 | 4.6 |
| HEXACHLOROBENZENE | ND | 9.4 | 4.7 |
| HEXACHLOROCYCLOPENTADIENE | ND | 9.4 | 4.7 |
| HEXACHLOROETHANE | ND | 9.4 | 4.7 |
| INDENO(1,2,3-CD)PYRENE | ND | 9.4 | 4.7 |
| ISOPHORONE | ND | 9.4 | 4.7 |
| N-NITROSO-DI-N-PROPYLAMINE | ND | 9.4 | 4.7 |
| N-NITROSODIPHENYLAMINE (2) | ND | 9.4 | 4.7 |
| NITROBENZENE | ND | 9.4 | 4.7 |
| PENTACHLOROPHENOL | ND | 19 | 9.4 |
| PHENANTHRENE | ND | 19 | 5.6 |
| PHENOL | ND | 9.4 | 4.7 |
| PYRENE | ND | 9.4 | 4.7 |
| 1,1'-BIPHENYL | ND | 9.4 | 4.7 |
| ACETOPHENONE | ND | 19 | 6.3 |
| ATRAZINE | ND | 19 | 9.4 |
| BENZALDEHYDE | ND | 9.4 | 4.7 |
| CAPROLACTAM | ND | 9.4 | 4.7 |
| CARBAZOLE | ND | 9.4 | 4.7 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| 2,4,6-TRIBROMOPHENOL | 84 | 25-134 |
| 2-FLUOROBIPHENYL | 78 | 43-125 |
| 2-FLUOROPHENOL | 64 | 25-125 |
| NITROBENZENE-D5 | 78 | 32-125 |
| PHENOL-D5 | 67 | 25-125 |
| TERPHENYL-D14 | 93 | 42-126 |

RL: Reporting Limit
 (1): Cannot be separated from 3-Methylphenol
 (2): Cannot be separated from Diphenylamine

SW 3520C/8270C
 SEMI VOLATILE ORGANICS BY GC/MS

| | |
|------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 09/28/04 |
| Project : MFA SITE 1, CTO 86 | Date Received: 09/30/04 |
| Batch No. : 041171 | Date Extracted: 09/30/04 13:00 |
| Sample ID: 86-S1-053 | Date Analyzed: 10/04/04 23:49 |
| Lab Samp ID: 1171-02 | Dilution Factor: .96 |
| Lab File ID: RJX020 | Matrix : WATER |
| Ext Btch ID: SV1034W | % Moisture : NA |
| Calib. Ref.: RIX007 | Instrument ID : T-042 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 2,4,5-TRICHLOROPHENOL | ND | 9.6 | 4.8 |
| 2,4,6-TRICHLOROPHENOL | ND | 9.6 | 4.8 |
| 2,4-DICHLOROPHENOL | ND | 9.6 | 4.8 |
| 2,4-DIMETHYLPHENOL | ND | 9.6 | 4.8 |
| 2,4-DINITROPHENOL | ND | 19 | 9.6 |
| 2,4-DINITROTOLUENE | ND | 19 | 9.6 |
| 2,6-DINITROTOLUENE | ND | 19 | 5.8 |
| 2-CHLORONAPHTHALENE | ND | 9.6 | 4.8 |
| 2-CHLOROPHENOL | ND | 9.6 | 4.8 |
| 2-METHYLNAPHTHALENE | ND | 9.6 | 4.8 |
| 2-METHYLPHENOL | ND | 9.6 | 4.8 |
| 2-NITROANILINE | ND | 19 | 4.8 |
| 2-NITROPHENOL | ND | 9.6 | 4.8 |
| 3,3'-DICHLOROBENZIDINE | ND | 9.6 | 4.8 |
| 3-NITROANILINE | ND | 9.6 | 4.8 |
| 2,6-DINITRO-2-METHYLPHENOL | ND | 19 | 9.6 |
| 4-BROMOPHENYL-PHENYL ETHER | ND | 19 | 6.7 |
| 4-CHLORO-3-METHYLPHENOL | ND | 9.6 | 4.8 |
| 4-CHLOROANILINE | ND | 9.6 | 4.8 |
| 4-CHLOROPHENYL-PHENYL ETHER | ND | 9.6 | 4.8 |
| 4-METHYLPHENOL (1) | ND | 9.6 | 4.8 |
| 4-NITROANILINE | ND | 9.6 | 4.8 |
| 4-NITROPHENOL | ND | 19 | 4.8 |
| ACENAPHTHENE | ND | 9.6 | 4.8 |
| ACENAPHTHYLENE | ND | 9.6 | 4.8 |
| ANTHRACENE | ND | 9.6 | 4.8 |
| BENZO(A)ANTHRACENE | ND | 9.6 | 4.8 |
| BENZO(A)PYRENE | ND | 9.6 | 4.8 |
| BENZO(B)FLUORANTHENE | ND | 9.6 | 4.8 |
| BENZO(K)FLUORANTHENE | ND | 9.6 | 4.8 |
| BENZO(G,H,I)PERYLENE | ND | 9.6 | 4.8 |
| BIS(2-CHLOROETHOXY)METHANE | ND | 9.6 | 4.8 |
| BIS(2-CHLOROETHYL)ETHER | ND | 9.6 | 4.8 |
| BIS(2-CHLORISOPROPYL)ETHER | ND | 19 | 9.6 |
| BIS(2-ETHYLHEXYL)PHTHALATE | ND | 9.6 | 4.8 |
| BUTYLBENZYLPHTHALATE | ND | 9.6 | 4.8 |
| CHRYSENE | ND | 9.6 | 4.8 |
| DI-N-BUTYLPHTHALATE | ND | 9.6 | 4.8 |
| DI-N-OCTYLPHTHALATE | ND | 9.6 | 4.8 |
| DIBENZO(A,H)ANTHRACENE | ND | 9.6 | 4.8 |
| DIBENZOFURAN | ND | 9.6 | 4.8 |
| DIETHYLPHTHALATE | ND | 19 | 5.8 |
| DIMETHYLPHTHALATE | ND | 19 | 4.8 |
| FLUORANTHENE | ND | 9.6 | 4.8 |
| FLUORENE | ND | 19 | 5.8 |
| HEXACHLOROBENZENE | ND | 9.6 | 4.8 |
| HEXACHLOROCYCLOPENTADIENE | ND | 9.6 | 4.8 |
| HEXACHLOROETHANE | ND | 9.6 | 4.8 |
| INDENO(1,2,3-CD)PYRENE | ND | 9.6 | 4.8 |
| ISOPHORONE | ND | 9.6 | 4.8 |
| N-NITROSO-DI-N-PROPYLAMINE | ND | 9.6 | 4.8 |
| N-NITROSODIPHENYLAMINE (2) | ND | 9.6 | 4.8 |
| NITROBENZENE | ND | 9.6 | 4.8 |
| PENTACHLOROPHENOL | ND | 19 | 9.6 |
| PHENANTHRENE | ND | 19 | 5.8 |
| PHENOL | ND | 9.6 | 4.8 |
| PYRENE | ND | 9.6 | 4.8 |
| 1,1'-BIPHENYL | ND | 9.6 | 4.8 |
| ACETOPHENONE | ND | 9.6 | 2.4 |
| ATRAZINE | ND | 19 | 9.6 |
| BENZALDEHYDE | ND | 9.6 | 4.8 |
| CAPROLACTAM | ND | 9.6 | 4.8 |
| CARBAZOLE | ND | 9.6 | 4.8 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| 2,4,6-TRIBROMOPHENOL | 78 | 25-134 |
| 2-FLUOROBIPHENYL | 65 | 43-125 |
| 2-FLUOROPHENOL | 51 | 25-125 |
| NITROBENZENE-D5 | 61 | 32-125 |
| PHENOL-D5 | 56 | 25-125 |
| TERPHENYL-D14 | 91 | 42-126 |

RL: Reporting Limit
 (1): Cannot be separated from 3-Methylphenol
 (2): Cannot be separated from Diphenylamine

SW 3520C/8270C
 SEMI VOLATILE ORGANICS BY GC/MS

| | |
|------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 09/28/04 |
| Project : MFA SITE 1, CTO 86 | Date Received: 09/30/04 |
| Batch No. : 041171 | Date Extracted: 09/30/04 13:00 |
| Sample ID: 86-S1-054 | Date Analyzed: 10/05/04 00:24 |
| Lab Samp ID: 1171-03 | Dilution Factor: .94 |
| Lab File ID: RJX021 | Matrix : WATER |
| Ext Btch ID: SVI034W | % Moisture : NA |
| Calib. Ref.: RIX007 | Instrument ID : T-042 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 2,4,5-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4,6-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DIMETHYLPHENOL | ND | 9.4 | 4.7 |
| 2,4-DINITROPHENOL | ND | 19 | 9.4 |
| 2,4-DINITROTOLUENE | ND | 19 | 9.4 |
| 2,6-DINITROTOLUENE | ND | 19 | 5.6 |
| 2-CHLORONAPHTHALENE | ND | 9.4 | 4.7 |
| 2-CHLOROPHENOL | ND | 9.4 | 4.7 |
| 2-METHYLNAPHTHALENE | ND | 9.4 | 4.7 |
| 2-METHYLPHENOL | ND | 9.4 | 4.7 |
| 2-NITROANILINE | ND | 19 | 5.6 |
| 2-NITROPHENOL | ND | 9.4 | 4.7 |
| 3,3'-DICHLOROBENZIDINE | ND | 9.4 | 4.7 |
| 3-NITROANILINE | ND | 19 | 9.4 |
| 4,6-DINITRO-2-METHYLPHENOL | ND | 19 | 6.6 |
| 4-BROMOPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-CHLORO-3-METHYLPHENOL | ND | 9.4 | 4.7 |
| 4-CHLOROANILINE | ND | 9.4 | 4.7 |
| 4-CHLOROPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-METHYLPHENOL (1) | ND | 9.4 | 4.7 |
| 4-NITROANILINE | ND | 9.4 | 4.7 |
| 4-NITROPHENOL | ND | 19 | 4.7 |
| ACENAPHTHENE | ND | 9.4 | 4.7 |
| ACENAPHTHYLENE | ND | 9.4 | 4.7 |
| ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)PYRENE | ND | 9.4 | 4.7 |
| BENZO(B)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(K)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(G,H,I)PERYLENE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHOXY)METHANE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-CHLOROISOPROPYL)ETHER | ND | 19 | 9.4 |
| BIS(2-ETHYLHEXYL)PHTHALATE | ND | 9.4 | 4.7 |
| BUTYLBENZYLPHTHALATE | ND | 9.4 | 4.7 |
| CHRYSENE | ND | 9.4 | 4.7 |
| DI-N-BUTYLPHTHALATE | ND | 9.4 | 4.7 |
| DI-N-OCTYLPHTHALATE | ND | 9.4 | 4.7 |
| DIBENZO(A,H)ANTHRACENE | ND | 9.4 | 4.7 |
| DIBENZOFURAN | ND | 9.4 | 4.7 |
| DIETHYLPHTHALATE | ND | 19 | 5.6 |
| DIMETHYLPHTHALATE | ND | 19 | 4.7 |
| FLUORANTHENE | ND | 9.4 | 4.7 |
| FLUORENE | ND | 9.4 | 4.7 |
| HEXACHLOROBENZENE | ND | 9.4 | 2.6 |
| HEXACHLOROCYCLOPENTADIENE | ND | 9.4 | 4.7 |
| HEXACHLOROETHANE | ND | 9.4 | 4.7 |
| INDENO(1,2,3-CD)PYRENE | ND | 9.4 | 4.7 |
| ISOPHORONE | ND | 9.4 | 4.7 |
| N-NITROSO-DI-N-PROPYLAMINE | ND | 9.4 | 4.7 |
| N-NITROSODIPHENYLAMINE (2) | ND | 9.4 | 4.7 |
| NITROBENZENE | ND | 9.4 | 4.7 |
| PENTACHLOROPHENOL | ND | 19 | 9.4 |
| PHENANTHRENE | ND | 19 | 5.6 |
| PHENOL | ND | 9.4 | 4.7 |
| PYRENE | ND | 9.4 | 4.7 |
| 1,1'-BIPHENYL | ND | 9.4 | 4.7 |
| ACETOPHENONE | ND | 9.4 | 2.3 |
| ATRAZINE | ND | 19 | 9.4 |
| BENZALDEHYDE | ND | 9.4 | 4.7 |
| CAPROLACTAM | ND | 9.4 | 4.7 |
| CARBAZOLE | ND | 9.4 | 4.7 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| 2,4,6-TRIBROMOPHENOL | 80 | 25-134 |
| 2-FLUOROBIPHENYL | 69 | 43-125 |
| 2-FLUOROPHENOL | 54 | 25-125 |
| NITROBENZENE-D5 | 68 | 42-125 |
| PHENOL-D5 | 58 | 25-125 |
| TERPHENYL-D14 | 93 | 42-126 |

RL: Reporting Limit
 (1): Cannot be separated from 3-Methylphenol
 (2): Cannot be separated from Diphenylamine

SW 3520C/8270C
 SEMI VOLATILE ORGANICS BY GC/MS

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=====
Client       : TETRA TECH FW INC.      Date Collected: 09/28/04
Project      : MFA SITE 1, CTO 86     Date Received: 09/30/04
Batch No.    : 041171                 Date Extracted: 09/30/04 13:00
Sample ID    : 86-S1-055              Date Analyzed: 10/05/04 00:59
Lab Samp ID  : 1171-04                Dilution Factor: .99
Lab File ID  : RJX022                 Matrix: WATER
Ext Btch ID  : SVI034W                % Moisture: NA
Calib. Ref.  : RIX007                 Instrument ID: T-042
=====
  
```

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 2,4,5-TRICHLOROPHENOL | ND | 9.9 | 4.9 |
| 2,4,6-TRICHLOROPHENOL | ND | 9.9 | 4.9 |
| 2,4-DICHLOROPHENOL | ND | 9.9 | 4.9 |
| 2,4-DIMETHYLPHENOL | ND | 9.9 | 4.9 |
| 2,4-DINITROPHENOL | ND | 20 | 9.9 |
| 2,4-DINITROTOLUENE | ND | 20 | 9.9 |
| 2,6-DINITROTOLUENE | ND | 20 | 5.9 |
| 2-CHLORONAPHTHALENE | ND | 9.9 | 4.9 |
| 2-CHLOROPHENOL | ND | 9.9 | 4.9 |
| 2-METHYLNAPHTHALENE | ND | 9.9 | 4.9 |
| 2-METHYLPHENOL | ND | 20 | 5.9 |
| 2-NITROANILINE | ND | 9.9 | 4.9 |
| 2-NITROPHENOL | ND | 9.9 | 4.9 |
| 3,1-DICHLOROBENZIDINE | ND | 9.9 | 4.9 |
| 3-NITROANILINE | ND | 9.9 | 4.9 |
| 4,6-DINITRO-2-METHYLPHENOL | ND | 20 | 9.9 |
| 4-BROMOPHENYL-PHENYL ETHER | ND | 20 | 6.9 |
| 4-CHLORO-3-METHYLPHENOL | ND | 9.9 | 4.9 |
| 4-CHLOROANILINE | ND | 9.9 | 4.9 |
| 4-CHLOROPHENYL-PHENYL ETHER | ND | 9.9 | 4.9 |
| 4-METHYLPHENOL (1) | ND | 9.9 | 4.9 |
| 4-NITROANILINE | ND | 9.9 | 4.9 |
| 4-NITROPHENOL | ND | 20 | 4.9 |
| ACENAPHTHENE | ND | 9.9 | 4.9 |
| ACENAPHTHYLENE | ND | 9.9 | 4.9 |
| ANTHRACENE | ND | 9.9 | 4.9 |
| BENZO(A)ANTHRACENE | ND | 9.9 | 4.9 |
| BENZO(A)PYRENE | ND | 9.9 | 4.9 |
| BENZO(B)FLUORANTHENE | ND | 9.9 | 4.9 |
| BENZO(K)FLUORANTHENE | ND | 9.9 | 4.9 |
| BENZO(G,H,I)PERYLENE | ND | 9.9 | 4.9 |
| BIS(2-CHLOROETHOXY)METHANE | ND | 9.9 | 4.9 |
| BIS(2-CHLOROETHYL)ETHER | ND | 9.9 | 4.9 |
| BIS(2-CHLOROISOPROPYL)ETHER | ND | 9.9 | 4.9 |
| BIS(2-ETHYLHEXYL)PHTHALATE | ND | 20 | 9.9 |
| BUTYLBENZYLPHTHALATE | ND | 9.9 | 4.9 |
| CHRYSENE | ND | 9.9 | 4.9 |
| DI-N-BUTYLPHTHALATE | ND | 9.9 | 4.9 |
| DI-N-OCTYLPHTHALATE | ND | 9.9 | 4.9 |
| DIBENZO(A,H)ANTHRACENE | ND | 9.9 | 4.9 |
| DIBENZOFURAN | ND | 9.9 | 4.9 |
| DIETHYLPHTHALATE | ND | 20 | 5.9 |
| DIMETHYLPHTHALATE | ND | 20 | 4.9 |
| FLUORANTHENE | ND | 9.9 | 4.9 |
| FLUORENE | ND | 20 | 5.9 |
| HEXACHLORO BENZENE | ND | 9.9 | 4.9 |
| HEXACHLOROCYCLOPENTADIENE | ND | 9.9 | 4.9 |
| HEXACHLOROETHANE | ND | 9.9 | 4.9 |
| INDENO(1,2,3-CD)PYRENE | ND | 9.9 | 4.9 |
| ISOPHORONE | ND | 9.9 | 4.9 |
| N-NITROSO-DI-N-PROPYLAMINE | ND | 9.9 | 4.9 |
| N-NITROSODIPHENYLAMINE (2) | ND | 9.9 | 4.9 |
| NITROBENZENE | ND | 9.9 | 4.9 |
| PENTACHLOROPHENOL | ND | 20 | 9.9 |
| PHENANTHRENE | ND | 20 | 5.9 |
| PHENOL | ND | 9.9 | 4.9 |
| PYRENE | ND | 9.9 | 4.9 |
| 1,1'-BIPHENYL | ND | 9.9 | 4.9 |
| ACETOPHENONE | ND | 20 | 9.9 |
| ATRAZINE | ND | 9.9 | 4.9 |
| BENZALDEHYDE | ND | 9.9 | 4.9 |
| CAPROLACTAM | ND | 9.9 | 4.9 |
| CARBAZOLE | ND | 9.9 | 4.9 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| 2,4,6-TRIBROMOPHENOL | 81 | 25-134 |
| 2-FLUOROBIPHENYL | 70 | 43-125 |
| 2-FLUOROPHENOL | 57 | 25-125 |
| NITROBENZENE-D5 | 68 | 32-125 |
| PHENOL-D5 | 61 | 25-125 |
| TERPHENYL-D14 | 93 | 42-126 |

RL: Reporting Limit
 (1): Cannot be separated from 3-Methylphenol
 (2): Cannot be separated from Diphenylamine

CASE NARRATIVE

CLIENT: TETRA TECH FW, INC.

PROJECT: MFA, SITE 1, CTO 86

SDG: 041171

SW7470A
DISSOLVED MERCURY BY COLD VAPOR

Four (4) water samples were received on 09/30/04 for Dissolved Mercury analysis by Method 7470A in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW846, 3rd edition.

1. Holding Time

Analysis met the holding time criteria.

2. Method Blank

Method blank was free of contamination at the reporting limit.

3. Lab Control Sample/Lab Control Sample Duplicate

Lab control results were within the QC limit.

4. Serial Dilution/Post Analytical Spike

Sample 1157-04 from another SDG was analyzed for serial dilution and post analytical spike. All QC requirements were met.

5. Matrix Spike/Matrix Spike Duplicate

MS/MSD sample was not designated for this SDG.

6. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criteria were met. Samples were diluted 20 times due to matrix interference.

METHOD 7470A
DISSOLVED MERCURY BY COLD VAPOR

Client : TETRA TECH FW, INC.
Project : MFA, SITE 1, CTO 86
Batch No. : 041171

Matrix : WATER
Instrument ID : TI047

| SAMPLE ID | EMAX SAMPLE ID | RESULTS (ug/L) | DLF | MOIST | RL (ug/L) | MOL (ug/L) | Analysis DATE/TIME | Extraction DATE/TIME | LFTD | CAL REF | PREP BATCH | Collection DATE/TIME | Received DATE/TIME |
|-----------|-------------------|-------------------|-----|-------|--------------|---------------|-----------------------|-------------------------|------------|------------|------------|-------------------------|-----------------------|
| MBLK1W | HG1059WB | ND | 1 | NA | .2 | .1 | 10/01/0414:24 | 09/30/0416:00 | M47J002010 | M47J002008 | HG1059W | NA | 09/30/04 |
| LCS1W | HG1059WC | 5.04 | 1 | NA | .2 | .1 | 10/01/0414:26 | 09/30/0416:00 | M47J002011 | M47J002008 | HG1059W | NA | 09/30/04 |
| LCD1W | HG1059WC | 5.1 | 1 | NA | .2 | .1 | 10/01/0414:29 | 09/30/0416:00 | M47J002012 | M47J002008 | HG1059W | NA | 09/30/04 |
| 86-S1-052 | I171-01 | ND | 20 | NA | 4 | 2 | 10/01/0415:02 | 09/30/0416:00 | M47J002027 | M47J002020 | HG1059W | 09/28/04 | 09/30/04 |
| 86-S1-053 | I171-02 | ND | 20 | NA | 4 | 2 | 10/01/0415:04 | 09/30/0416:00 | M47J002028 | M47J002020 | HG1059W | 09/28/04 | 09/30/04 |
| 86-S1-054 | I171-03 | ND | 20 | NA | 4 | 2 | 10/01/0415:06 | 09/30/0416:00 | M47J002029 | M47J002020 | HG1059W | 09/28/04 | 09/30/04 |
| 86-S1-055 | I171-04 | ND | 20 | NA | 4 | 2 | 10/01/0415:08 | 09/30/0416:00 | M47J002030 | M47J002020 | HG1059W | 09/28/04 | 09/30/04 |

RL: Reporting Limit

7003

ORIGINAL

LDC Report# 12637B2

Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name: Moffett Airfield, Site 1, CTO 86

Collection Date: September 28, 2004

LDC Report Date: October 21, 2004

Matrix: Water

Parameters: Semivolatiles

Validation Level: EPA Level III & IV

Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 04171

Sample Identification

86-S1-052

86-S1-053**

86-S1-054

86-S1-055

**Indicates sample underwent EPA Level IV review

Introduction

This data review covers 4 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8270C for Semivolatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XVI.

Samples indicated by a double asterisk on the front cover underwent a EPA Level IV review. A EPA Level III review was performed on all of the other samples. Raw data were not evaluated for the samples reviewed by Level III criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

The mean percent relative standard deviation (%RSD) for all compounds was less than or equal to 15.0% and less than or equal to 30.0% for selected individual compounds.

A curve fit, based on the initial calibration, was established for quantitation for selected compounds. The coefficient of determination (r^2) was greater than or equal to 0.990 .

Average relative response factors (RRF) for all system performance check compounds (SPCCs) were within method criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

For the purposes of technical evaluation, all compounds were evaluated against the 25.0% (%D) National Functional Guideline criteria. Unless noted above, all compounds were within the validation criteria.

Initial calibration verification (ICV) percent differences (%D) were less than or equal to 20.0% for all compounds with the following exceptions:

| Date | Compound | %D | Associated Samples | Flag | A or P |
|--------|------------------------|------|---------------------------|-----------------------------------------|--------|
| 9/1/04 | N-Nitrosodiphenylamine | 22.1 | All samples in SDG 041171 | J (all detects) UJ (all non-detects) | A |

All of the continuing calibration RRF values for all system performance check compounds (SPCCs) were within method criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No semivolatile contaminants were found in the method blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

| LCS ID (Associated Samples) | Compound | LCS %R (Limits) | LCSD %R (Limits) | RPD (Limits) | Flag | A or P |
|--------------------------------------------|---------------|--------------------|---------------------|------------------|-----------------------------------------|--------|
| LCS/D1W (All samples in SDG 041171)) | 4-Nitrophenol | - | - | 51 (≤ 30) | J (all detects) UJ (all non-detects) | P |
| | Phenol | - | - | 54 (≤ 30) | J (all detects) UJ (all non-detects) | |

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XII. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XV. Overall Assessment

Data flags have been summarized at the end of the report.

XVI. Field Duplicates

Samples 86-S1-052 and 86-S1-053** were identified as field duplicates. No semivolatiles were detected in any of the samples.

XVII. Field Blanks

No field blanks were identified in this SDG.

Moffett Airfield, Site 1, CTO 86
Semivolatiles - Data Qualification Summary - SDG 04I171

| SDG | Sample | Compound | Flag | A or P | Reason |
|--------|----------------------------------------------------|-----------------------------|------------------------------------------------------------------------------------|--------|-------------------------------------|
| 04I171 | 86-S1-052 86-S1-053** 86-S1-054 86-S1-055 | N-Nitrosodiphenylamine | J (all detects) UJ (all non-detects) | A | Continuing calibration (ICV %D) |
| 04I171 | 86-S1-052 86-S1-053** 86-S1-054 86-S1-055 | 4-Nitrophenol Phenol | J (all detects) UJ (all non-detects) J (all detects) UJ (all non-detects) | P | Laboratory control samples (RPD) |

Moffett Airfield, Site 1, CTO 86
Semivolatiles - Laboratory Blank Data Qualification Summary - SDG 04I171

No Sample Data Qualified in this SDG

ORIGINAL

LDC Report# 12637B4

**Laboratory Data Consultants, Inc.
Data Validation Report**

Project/Site Name: Moffett Airfield, Site 1, CTO 86

Collection Date: September 28, 2004

LDC Report Date: October 28, 2004

Matrix: Water

Parameters: Dissolved Mercury

Validation Level: EPA Level III & IV

Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 04I171

Sample Identification

86-S1-052

86-S1-053**

86-S1-054

86-S1-055

**Indicates sample underwent EPA Level IV review

Introduction

This data review covers 4 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 7470A for Dissolved Mercury.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (February 1994) as there are no current guidelines for the method stated above.

A table summarizing all data qualification flags is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from specified protocols or is of technical advisory nature.

Blanks are summarized in Section III.

Field duplicates are summarized in Section XIII.

Samples indicated by a double asterisk on the front cover underwent a EPA Level IV review. A EPA Level III review was performed on all of the other samples. Raw data were not evaluated for the samples reviewed by Level III criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UU Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

An initial calibration was performed.

The frequency and analysis criteria of the initial calibration verification (ICV) and continuing calibration verification (CCV) were met.

III. Blanks

Method blanks were reviewed for each matrix as applicable.

Data qualification by the initial, continuing and preparation blanks (ICB/CCB/PBs) was based on the maximum contaminant concentration in the ICB/CCB/PBs in the analysis of each analyte. No contaminant concentrations were found in the initial, continuing and preparation blanks.

IV. ICP Interference Check Sample (ICS) Analysis

ICP interference check sample was not required by the method.

V. Matrix Spike Analysis

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VI. Duplicate Sample Analysis

The laboratory has indicated that there were no duplicate (DUP) analyses specified for the samples in this SDG, and therefore duplicate analyses were not performed for this SDG.

VII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Internal Standards

ICP-MS was not utilized in this SDG.

IX. Furnace Atomic Absorption QC

Graphite furnace atomic absorption was not utilized in this SDG.

X. ICP Serial Dilution

ICP serial dilution was not required by the method.

XI. Sample Result Verification

All sample result verifications met validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XII. Overall Assessment of Data

Data flags have been summarized at the end of this report.

XIII. Field Duplicates

Samples 86-S1-052 and 86-S1-053** were identified as field duplicates. No dissolved mercury was detected in any of the samples.

XIV. Field Blanks

No field blanks were identified in this SDG.

Moffett Airfield, Site 1, CTO 86

Dissolved Mercury - Data Qualification Summary - SDG 04I171

No Sample Data Qualified in this SDG

Moffett Airfield, Site 1, CTO 86

Dissolved Mercury - Laboratory Blank Data Qualification Summary - SDG 04I171

No Sample Data Qualified in this SDG

DECEMBER 2004



TETRA TECH
1230 Columbia Street, Suite 500
San Diego, CA 92101 (619) 234-8696

NUMBER 10305

CHAIN-OF-CUSTODY RECORD

| | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------------------|----------------|----------------------------------------------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---|--|--|--|--|--|---------------------------------------------|--|------------------------------------------------------------------|------------|--------|-----------|----|-----|
| PROJECT NAME: Sitel R6/04 Baseline | | PURCHASE ORDER NO. 20848-Task 28 | | ANALYSES REQUIRED | | | | | | | | | | LABORATORY NAME EMAX | | Project Information Section Do not submit to Laboratory | | | | | |
| PROJECT LOCATION Moffett | | PROJECT NO. 1990-086E | | <div style="display: flex; justify-content: space-between;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">epa 8270C ext. List</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">epa 7470A ext. List</div> </div> | | | | | | | | | | LABORATORY ID (FOR LABORATORY) 04L115 | | | | | | | |
| SAMPLER NAME D. Harrison | | AIRBILL NUMBER 845907661634 | | | | | | | | | | | | LABORATORY ID (FOR LABORATORY) 04L115 | | | | | | | |
| PROJECT CONTACT Lynn Jefferson | | PROJECT CONTACT PHONE NUMBER 744/756-7500 | | | | | | | | | | | | COMMENTS | | LOCATION | | DEPTH | | QC | |
| SAMPLE ID | DATE COLLECTED | TIME COLLECTED | NO. OF CONTAINER | LEVEL 3 4 | T TYPE | T A T | | | | | | | | | | | | | START END | | |
| 86-SI-071 | 12-13-04 | 1035 | 3 | X | W | 10 day | X | X | | | | | | | | | | W1-1R | | | Reg |
| 86-SI-072 | 12-13-04 | 1115 | 9 | X | W | 10 day | X | X | | | | | | | | | Run MS/MSD | W1-15 | | | Reg |
| 86-SI-073 | 12-13-04 | 1310 | 3 | X | W | 10 day | X | X | | | | | | | | | | W1-19 | | | Reg |
| 86-SI-075 | 12-13-04 | 1358 | 3 | X | W | 10 day | X | X | | | | | | | | | | W1-14 | | | Reg |
| 86-SI-076 | 12-13-04 | 1500 | 3 | X | W | 10 day | X | X | | | | | | | | | | W1-12R | | | Reg |
| 86-SI-077 | 12-13-04 | 1510 | 3 | X | W | 10 day | X | X | | | | | | | | | | W1-12R | | | FD |
| 86-SI-078 | 12-14-04 | 0812 | 3 | X | W | 10 day | X | X | | | | | | | | | | W1-22 | | | Reg |
| 86-SI-079 | 12-14-04 | 0845 | 3 | X | W | 10 day | X | X | | | | | | | | | | W1-5 | | | Reg |
| 86-SI-080 | 12-14-04 | 0855 | 3 | X | W | 10 day | X | X | | | | | | | | | | W1-5 | | | FD |
| 86-SI-081 | 12-14-04 | 0930 | 3 | X | W | 10 day | X | X | | | | | | | | | | W1-8 | | | Reg |
| RELINQUISHED BY (Signature) [Signature] | | DATE 12-14-04 | | RECEIVED BY (Signature) [Signature] | | LABORATORY INSTRUCTIONS/COMMENTS D. Mercury was field filtered EXT. LIST = Extended List. | | | | | | | | | | SAMPLING COMMENT: Sitel R6/04 Baseline | | | | | |
| COMPANY Tetra | | TIME 1400 | | COMPANY | | | | | | | | | | | | | | | | | |
| RELINQUISHED BY (Signature) | | DATE | | RECEIVED BY (Signature) | | COMPOSITE DESCRIPTION | | | | | | | | | | | | | | | |
| COMPANY | | TIME | | COMPANY | | | | | | | | | | | | | | | | | |
| RELINQUISHED BY (Signature) | | DATE | | RECEIVED BY (Signature) | | SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY) TEMPERATURE: _____ SAMPLE CONDITION: <input type="checkbox"/> INTACT <input type="checkbox"/> BROKEN COOLER SEAL: <input type="checkbox"/> INTACT <input type="checkbox"/> BROKEN | | | | | | | | | | | | | | | |
| COMPANY | | TIME | | COMPANY | | | | | | | | | | | | | | | | | |



TETRA TECH
1236 Columbia Street, Suite 500
San Diego, CA 92101 (619) 234-8696

NUMBER 10306

CHAIN-OF-CUSTODY RECORD

| PROJECT NAME <i>Site 1 - R6/04 Baseline</i> | | PURCHASE ORDER NO. <i>20848 - Task 28</i> | | ANALYSES REQUIRED | | | | | | | | | | LABORATORY NAME <i>EMAX</i> | | Project Information Section Do not submit to Laboratory | | | | | |
|----------------------------------------------------|-----------------|-----------------------------------------------------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-------------------------------------|-------------------------------------|--|--|--|--|----------------------------------------------------|--|------------------------------------------------------------------|--|--------------|-------|--|------------|
| PROJECT LOCATION <i>Moffett</i> | | PROJECT NO. <i>1990.086E</i> | | <div style="display: flex; justify-content: space-between;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">epa 8270C - EXT. LIST</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">epa 7410A - EXT. LIST</div> </div> | | | | | | | | | | LABORATORY ID (FOR LABORATORY) <i>044115</i> | | | | | | | |
| SAMPLER NAME <i>D. Harrison</i> | | AIRBILL NUMBER <i>845907661634</i> | | | | | | | | | | | | LABORATORY COMMENTS | | | | | | | |
| PROJECT CONTACT <i>Lynn Jefferson</i> | | PROJECT CONTACT PHONE NUMBER <i>949/756-7500</i> | | | | | | | | | | | | | | | | | | | |
| SAMPLE ID | DATE COLLECTED | TIME COLLECTED | NO. OF CONTAINER | LEVEL | | TYPE | T A T | | | | | | | | | | | LOCATION | DEPTH | | QC |
| | | | | 3 | 4 | | | START | END | | | | | | | | | | | | |
| <i>86-SI-082</i> | <i>12-14-01</i> | <i>1005</i> | <i>3</i> | <input checked="" type="checkbox"/> | | <i>W</i> | <i>10 day</i> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | | | | | | | | | <i>W1-24</i> | | | <i>Reg</i> |
| <i>86-SI-083</i> | <i>12-14-01</i> | <i>1035</i> | <i>3</i> | <input checked="" type="checkbox"/> | | <i>W</i> | <i>10 day</i> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | | | | | | | | | <i>W1-16</i> | | | <i>Reg</i> |
| <div style="font-size: 4em; opacity: 0.5;">X</div> | | | | | | | | | | | | | | | | | | | | | |
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| RELINQUISHED BY (Signature) <i>[Signature]</i> | | DATE <i>12-14-01</i> | | RECEIVED BY (Signature) <i>F. De...</i> | | LABORATORY INSTRUCTIONS/COMMENTS <i>D. Mercury was field collected. EXT. LIST = Extended List</i> | | | | | | | | | | SAMPLING COMMENT: <i>Site 1 - R6/04 Baseline 16</i> | | | | | |
| COMPANY <i>TTFW</i> | | TIME <i>1400</i> | | COMPANY | | | | | | | | | | | | | | | | | |
| RELINQUISHED BY (Signature) | | DATE | | RECEIVED BY (Signature) | | COMPOSITE DESCRIPTION | | | | | | | | | | | | | | | |
| COMPANY | | TIME | | COMPANY | | | | | | | | | | | | | | | | | |
| RELINQUISHED BY (Signature) | | DATE | | RECEIVED BY (Signature) | | | | | | | | | | | | | | | | | |
| COMPANY | | TIME | | COMPANY | | SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY) TEMPERATURE: _____ SAMPLE CONDITION: <input type="checkbox"/> INTACT <input type="checkbox"/> BROKEN COOLER SEAL: <input type="checkbox"/> INTACT <input type="checkbox"/> BROKEN | | | | | | | | | | | | | | | |
| RELINQUISHED BY (Signature) | | DATE | | RECEIVED BY (Signature) | | | | | | | | | | | | | | | | | |
| COMPANY | | TIME | | COMPANY | | | | | | | | | | | | | | | | | |

13002 A


LABORATORIES, INC.

1835 W. 205th Street

Torrance, CA 90501

Tel: (310) 618-8889

Fax: (310) 618-0818

Date: 01-03-2005

EMAX Batch No.: 04L115

Attn: Lynn Jefferson

Tetra Tech FW, Inc.

1940 E Deere Ave, Suite 200

Santa Ana CA 92705

Subject: Laboratory Report

Project: MFA, Site 1, CTD 86

 Enclosed is the Laboratory report for samples received on
 12/15/04. The data reported include :

| Sample ID | Control # | Col Date | Matrix | Analysis |
|-----------|-----------|----------|--------|----------------------------------------------------|
| 86-S1-071 | L115-01 | 12/13/04 | WATER | MERCURY DISSOLVED SEMIVOLATILE ORGANICS BY GCMS |
| 86-S1-072 | L115-02 | 12/13/04 | WATER | MERCURY DISSOLVED SEMIVOLATILE ORGANICS BY GCMS |
| 86-S1-073 | L115-03 | 12/13/04 | WATER | MERCURY DISSOLVED SEMIVOLATILE ORGANICS BY GCMS |
| 86-S1-075 | L115-04 | 12/13/04 | WATER | MERCURY DISSOLVED SEMIVOLATILE ORGANICS BY GCMS |
| 86-S1-076 | L115-05 | 12/13/04 | WATER | MERCURY DISSOLVED SEMIVOLATILE ORGANICS BY GCMS |
| 86-S1-077 | L115-06 | 12/13/04 | WATER | MERCURY DISSOLVED SEMIVOLATILE ORGANICS BY GCMS |
| 86-S1-078 | L115-07 | 12/14/04 | WATER | MERCURY DISSOLVED SEMIVOLATILE ORGANICS BY GCMS |
| 86-S1-079 | L115-08 | 12/14/04 | WATER | MERCURY DISSOLVED SEMIVOLATILE ORGANICS BY GCMS |
| 86-S1-080 | L115-09 | 12/14/04 | WATER | MERCURY DISSOLVED SEMIVOLATILE ORGANICS BY GCMS |
| 86-S1-081 | L115-10 | 12/14/04 | WATER | MERCURY DISSOLVED |

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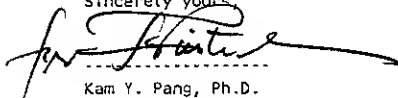
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| Sample ID | Control # | Col Date | Matrix | Analysis |
|--------------|-----------|----------|--------|----------------------------------------------------|
| 86-S1-082 | L115-11 | 12/14/04 | WATER | SEMIVOLATILE ORGANICS BY GCMS MERCURY DISSOLVED |
| 86-S1-083 | L115-12 | 12/14/04 | WATER | SEMIVOLATILE ORGANICS BY GCMS MERCURY DISSOLVED |
| 86-S1-072MS | L115-02M | 12/13/04 | WATER | SEMIVOLATILE ORGANICS BY GCMS MERCURY DISSOLVED |
| 86-S1-072MSD | L115-02S | 12/13/04 | WATER | SEMIVOLATILE ORGANICS BY GCMS MERCURY DISSOLVED |

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning these results.

Sincerely yours,



Kam Y. Pang, Ph.D.
Laboratory Director

CASE NARRATIVE

CLIENT: TETRA TECH FW, INC.
PROJECT: MFA, SITE 1, CTO 86
SDG: 04L115

SW 3520C/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Twelve (12) water samples were received on 12/15/04 for Semi Volatile Organic analysis by Method 3520C/8270C in accordance with USEPA SW846, 3rd ed.

1. Holding Time
Analytical holding time was met.
2. Tuning and Calibration
Tuning and calibration were carried out at 12-hour interval. All QC requirements were met.
3. Method Blank
Method blank was free of contamination at the reporting limit.
4. Surrogate Recovery
Recoveries were within QC limit.
5. Lab Control Sample/Lab Control Sample Duplicate
Recoveries were within QC limit.
6. Matrix Spike/Matrix Spike Duplicate
Sample L115-02 was spiked. All recoveries were within QC limit.
7. Sample Analysis
Samples were analyzed according to the prescribed QC procedures. All criteria were met.

SW 3520C/8270C
 SEMI VOLATILE ORGANICS BY GC/MS

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=====
Client       : TETRA TECH FW, INC.      Date Collected: 12/13/04
Project      : MFA SITE 1, CTO 86      Date Received: 12/15/04
Batch No.    : 04L115                  Date Extracted: 12/20/04 16:00
Sample ID    : 86-S1-071                Date Analyzed: 12/22/04 18:32
Lab Samp ID  : L115-01                  Dilution Factor: .94
Lab File ID  : RLH262                   Matrix          : WATER
Ext Btch ID  : SVL023W                  % Moisture       : NA
Calib. Ref.  : RLH007                   Instrument ID    : T-041
=====
  
```

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 2,4,5-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4,6-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DIMETHYLPHENOL | ND | 9.4 | 4.7 |
| 2,4-DINITROPHENOL | ND | 19 | 9.4 |
| 2,4-DINITROTOLUENE | ND | 19 | 9.4 |
| 2,6-DINITROTOLUENE | ND | 19 | 5.6 |
| 2-CHLORONAPHTHALENE | ND | 9.4 | 4.7 |
| 2-CHLOROPHENOL | ND | 9.4 | 4.7 |
| 2-METHYLNAPHTHALENE | ND | 9.4 | 4.7 |
| 2-METHYLPHENOL | ND | 9.4 | 4.7 |
| 2-NITROANILINE | ND | 19 | 5.6 |
| 2-NITROPHENOL | ND | 9.4 | 4.7 |
| 3,3'-DICHLOROBENZIDINE | ND | 9.4 | 4.7 |
| 3-NITROANILINE | ND | 9.4 | 4.7 |
| 4,6-DINITRO-2-METHYLPHENOL | ND | 19 | 9.4 |
| 4-BROMOPHENYL-PHENYL ETHER | ND | 19 | 6.6 |
| 4-CHLORO-3-METHYLPHENOL | ND | 9.4 | 4.7 |
| 4-CHLOROANILINE | ND | 9.4 | 4.7 |
| 4-CHLOROPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-METHYLPHENOL (1) | ND | 9.4 | 4.7 |
| 4-NITROANILINE | ND | 9.4 | 4.7 |
| 4-NITROPHENOL | ND | 19 | 4.7 |
| ACENAPHTHENE | ND | 9.4 | 4.7 |
| ACENAPHTHYLENE | ND | 9.4 | 4.7 |
| ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)PYRENE | ND | 9.4 | 4.7 |
| BENZO(B)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(K)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(G,H,I)PERYLENE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHOXY)METHANE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-CHLOROISOPROPYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-ETHYLHEXYL)PHTHALATE | ND | 19 | 9.4 |
| BUTYLBENZYLPHTHALATE | ND | 9.4 | 4.7 |
| CHRYSENE | ND | 9.4 | 4.7 |
| DI-N-BUTYLPHTHALATE | ND | 9.4 | 4.7 |
| DI-N-OCTYLPHTHALATE | ND | 9.4 | 4.7 |
| DIBENZO(A,H)ANTHRACENE | ND | 9.4 | 4.7 |
| DIBENZOFURAN | ND | 19 | 5.6 |
| DIETHYLPHTHALATE | ND | 19 | 4.7 |
| DIMETHYLPHTHALATE | ND | 9.4 | 4.7 |
| FLUORANTHENE | ND | 9.4 | 4.7 |
| FLUORENE | ND | 19 | 5.6 |
| HEXACHLOROBENZENE | ND | 9.4 | 4.7 |
| HEXACHLOROCYCLOPENTADIENE | ND | 9.4 | 4.7 |
| HEXACHLOROETHANE | ND | 9.4 | 4.7 |
| INDENO(1,2,3-CD)PYRENE | ND | 9.4 | 4.7 |
| ISOPHORONE | ND | 9.4 | 4.7 |
| N-NITROSO-DI-N-PROPYLAMINE | ND | 9.4 | 4.7 |
| N-NITROSODIPHENYLAMINE (2) | ND | 9.4 | 4.7 |
| NITROBENZENE | ND | 9.4 | 4.7 |
| PENTACHLOROPHENOL | ND | 19 | 9.4 |
| PHENANTHRENE | ND | 19 | 5.6 |
| PHENOL | ND | 9.4 | 4.7 |
| PYRENE | ND | 9.4 | 4.7 |
| 1,1'-BIPHENYL | ND | 9.4 | 4.7 |
| ACETOPHENONE | ND | 19 | 9.4 |
| ATRAZINE | ND | 9.4 | 4.7 |
| BENZALDEHYDE | ND | 9.4 | 4.7 |
| CAPROLACTAM | ND | 9.4 | 4.7 |
| CARBAZOLE | ND | 9.4 | 4.7 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| 4,6-TRIBROMOPHENOL | 71 | 25-134 |
| 2-FLUOROBIPHENYL | 73 | 43-125 |
| 3-FLUOROPHENOL | 65 | 25-125 |
| NITROBENZENE-D5 | 77 | 32-125 |
| PHENOL-D5 | 71 | 25-125 |
| TERPHENYL-D14 | 101 | 42-126 |

RL: Reporting Limit
 (1): Cannot be separated from 3-Methylphenol
 (2): Cannot be separated from Diphenylamine

SW 3520C/8270C
 SEMI VOLATILE ORGANICS BY GC/MS

| | |
|------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 12/13/04 |
| Project : MFA SITE 1, CTO B6 | Date Received: 12/15/04 |
| Batch No. : 04L115 | Date Extracted: 12/20/04 16:00 |
| Sample ID: 86-S1-072 | Date Analyzed: 12/22/04 18:59 |
| Lab Samp ID: L115-02 | Dilution Factor: .94 |
| Lab File ID: RLH263 | Matrix : WATER |
| Ext Btch ID: SVL023W | % Moisture : NA |
| Calib. Ref.: RLH007 | Instrument ID : T-041 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|------------------------------|-------------------|--------------|---------------|
| 2,4,5-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4,6-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DIMETHYLPHENOL | ND | 9.4 | 4.7 |
| 2,4-DINITROPHENOL | ND | 19 | 9.4 |
| 2,4-DINITROTOLUENE | ND | 19 | 9.4 |
| 2,6-DINITROTOLUENE | ND | 19 | 5.6 |
| 2-CHLORONAPHTHALENE | ND | 9.4 | 4.7 |
| 2-CHLOROPHENOL | ND | 9.4 | 4.7 |
| 2-METHYLNAPHTHALENE | ND | 9.4 | 4.7 |
| 2-METHYLPHENOL | ND | 9.4 | 4.7 |
| 2-NITROANILINE | ND | 19 | 5.6 |
| 2-NITROPHENOL | ND | 9.4 | 4.7 |
| 3,3'-DICHLOROBENZIDINE | ND | 9.4 | 4.7 |
| 3-NITROANILINE | ND | 9.4 | 4.7 |
| 4,6-DINITRO-2-METHYLPHENOL | ND | 19 | 9.4 |
| 4-BROMOPHENYL-PHENYL ETHER | ND | 19 | 6.6 |
| 4-CHLORO-3-METHYLPHENOL | ND | 9.4 | 4.7 |
| 4-CHLOROANILINE | ND | 9.4 | 4.7 |
| 4-CHLOROPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-METHYLPHENOL (1) | ND | 9.4 | 4.7 |
| 4-NITROANILINE | ND | 9.4 | 4.7 |
| 4-NITROPHENOL | ND | 19 | 4.7 |
| ACENAPHTHENE | ND | 9.4 | 4.7 |
| ACENAPHTHYLENE | ND | 9.4 | 4.7 |
| ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)PYRENE | ND | 9.4 | 4.7 |
| BENZO(B)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(K)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(G,H,I)PERYLENE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHOXY)METHANE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-CHLOROTISOPROPYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-ETHYLHEXYL)PHTHALATE | ND | 19 | 9.4 |
| BUTYLBENZYLPHTHALATE | ND | 9.4 | 4.7 |
| CHRYSENE | ND | 9.4 | 4.7 |
| DI-N-BUTYLPHTHALATE | ND | 9.4 | 4.7 |
| DI-N-OCTYLPHTHALATE | ND | 9.4 | 4.7 |
| DIBENZO(A,H)ANTHRACENE | ND | 9.4 | 4.7 |
| DIBENZOFURAN | ND | 19 | 4.7 |
| DIETHYLPHTHALATE | ND | 19 | 5.6 |
| DIMETHYLPHTHALATE | ND | 9.4 | 4.7 |
| FLUORANTHENE | ND | 9.4 | 4.7 |
| FLUORENE | ND | 19 | 5.6 |
| HEXACHLOROBENZENE | ND | 9.4 | 4.7 |
| HEXACHLOROCYCLOPENTADIENE | ND | 9.4 | 4.7 |
| HEXACHLOROETHANE | ND | 9.4 | 4.7 |
| INDENO(1,2,3-CD)PYRENE | ND | 9.4 | 4.7 |
| ISOPHORONE | ND | 9.4 | 4.7 |
| N-NITROSO-DI-N-PROPYLAMINE | ND | 9.4 | 4.7 |
| N-NITROSODIPHENYLAMINE (2) | ND | 9.4 | 4.7 |
| NITROBENZENE | ND | 9.4 | 4.7 |
| PENTACHLOROPHENOL | ND | 19 | 9.4 |
| PHENANTHRENE | ND | 19 | 5.6 |
| PHENOL | ND | 9.4 | 4.7 |
| PYRENE | ND | 9.4 | 4.7 |
| 1,1'-BIPHENYL | ND | 9.4 | 4.7 |
| ACETOPHENONE | ND | 9.4 | 2.3 |
| ATRAZINE | ND | 19 | 9.4 |
| BENZALDEHYDE | ND | 9.4 | 4.7 |
| CAPROLACTAM | ND | 9.4 | 4.7 |
| CARBAZOLE | ND | 9.4 | 4.7 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| 2,4,6-TRIBROMOPHENOL | 66 | 25-134 |
| 2-FLUOROBIPHENYL | 60 | 43-125 |
| 2-FLUOROPHENOL | 53 | 25-125 |
| NITROBENZENE-D5 | 62 | 32-125 |
| PHENOL-D5 | 59 | 25-125 |
| TERPHENYL-D14 | 91 | 42-126 |

RL: Reporting Limit
 (1): Cannot be separated from 3-Methylphenol
 (2): Cannot be separated from Diphenylamine

SW 3520C/8270C
 SEMI VOLATILE ORGANICS BY GC/MS

| | |
|------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 12/13/04 |
| Project : MFA SITE 1, CTO 86 | Date Received: 12/15/04 |
| Batch No. : D4L115 | Date Extracted: 12/20/04 16:00 |
| Sample ID: 86-S1-073 | Date Analyzed: 12/22/04 20:22 |
| Lab Samp ID: L115-03 | Dilution Factor: .94 |
| Lab File ID: RLH266 | Matrix : WATER |
| Ext Btch ID: SVL023W | % Moisture : NA |
| Calib. Ref.: RLH007 | Instrument ID : T-041 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 2,4,5-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4,6-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DIMETHYLPHENOL | ND | 9.4 | 4.7 |
| 2,4-DINITROPHENOL | ND | 19 | 9.4 |
| 2,4-DINITROTOLUENE | ND | 19 | 9.4 |
| 2,6-DINITROTOLUENE | ND | 19 | 5.6 |
| 2-CHLORONAPHTHALENE | ND | 9.4 | 4.7 |
| 2-CHLOROPHENOL | ND | 9.4 | 4.7 |
| 2-METHYLNAPHTHALENE | ND | 9.4 | 4.7 |
| 2-METHYLPHENOL | ND | 19 | 5.6 |
| 2-NITROANILINE | ND | 9.4 | 4.7 |
| 2-NITROPHENOL | ND | 9.4 | 4.7 |
| 3,3'-DICHLOROBENZIDINE | ND | 9.4 | 4.7 |
| 3-NITROANILINE | ND | 19 | 9.4 |
| 4,6-DINITRO-2-METHYLPHENOL | ND | 19 | 6.6 |
| 4-BROMOPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-CHLORO-3-METHYLPHENOL | ND | 9.4 | 4.7 |
| 4-CHLOROANILINE | ND | 9.4 | 4.7 |
| 4-CHLOROPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-METHYLPHENOL (1) | ND | 9.4 | 4.7 |
| 4-NITROANILINE | ND | 19 | 4.7 |
| 4-NITROPHENOL | ND | 9.4 | 4.7 |
| ACENAPHTHENE | ND | 9.4 | 4.7 |
| ACENAPHTHYLENE | ND | 9.4 | 4.7 |
| ANTHRACENE | ND | 9.4 | 4.7 |
| 3ENZO(A)ANTHRACENE | ND | 9.4 | 4.7 |
| 3ENZO(A)PYRENE | ND | 9.4 | 4.7 |
| 3ENZO(B)FLUORANTHENE | ND | 9.4 | 4.7 |
| 3ENZO(K)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(C,H,1)PERYLENE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHOXY)METHANE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-CHLOROISOPROPYL)ETHER | ND | 19 | 9.4 |
| BIS(2-ETHYLHEXYL)PHTHALATE | ND | 9.4 | 4.7 |
| BUTYLBENZYLPHTHALATE | ND | 9.4 | 4.7 |
| CHRYSENE | ND | 9.4 | 4.7 |
| DI-N-BUTYLPHTHALATE | ND | 9.4 | 4.7 |
| DI-N-OCTYLPHTHALATE | ND | 9.4 | 4.7 |
| DIBENZO(A,H)ANTHRACENE | ND | 9.4 | 4.7 |
| DIBENZOFURAN | ND | 19 | 5.6 |
| DIETHYLPHTHALATE | ND | 19 | 4.7 |
| DIMETHYLPHTHALATE | ND | 9.4 | 4.7 |
| FLUORANTHENE | ND | 9.4 | 4.7 |
| FLUORENE | ND | 19 | 5.6 |
| HEXACHLOROBENZENE | ND | 9.4 | 4.7 |
| HEXACHLOROCCYCLOPENTADIENE | ND | 9.4 | 4.7 |
| HEXACHLOROETHANE | ND | 9.4 | 4.7 |
| INDENO(1,2,3-CD)PYRENE | ND | 9.4 | 4.7 |
| ISOPHORONE | ND | 9.4 | 4.7 |
| N-NITROSO-DI-N-PROPYLAMINE | ND | 9.4 | 4.7 |
| N-NITROSODIPHENYLAMINE (2) | ND | 9.4 | 4.7 |
| NITROBENZENE | ND | 19 | 9.4 |
| PENTACHLOROPHENOL | ND | 19 | 5.6 |
| PHENANTHRENE | ND | 9.4 | 4.7 |
| PHENOL | ND | 9.4 | 4.7 |
| PYRENE | ND | 9.4 | 4.7 |
| 1,1'-BIPHENYL | ND | 9.4 | 2.5 |
| ACETOPHENONE | ND | 19 | 9.4 |
| ATRAZINE | ND | 9.4 | 4.7 |
| BENZALDEHYDE | ND | 9.4 | 4.7 |
| CAPROLACTAM | ND | 9.4 | 4.7 |
| CARBAZOLE | ND | 9.4 | 4.7 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| 2,4,6-TRIBROMOPHENOL | 79 | 25-134 |
| 2-FLUOROBIPHENYL | 78 | 43-125 |
| 2-FLUOROPHENOL | 65 | 25-125 |
| NITROBENZENE-D5 | 83 | 32-125 |
| PHENOL-D5 | 68 | 25-125 |
| TERPHENYL-D14 | 103 | 42-126 |

RL: Reporting Limit

(1): Cannot be separated from 3-Methylphenol

(2): Cannot be separated from Diphenylamine

SW 3520C/8270C
SEMI VOLATILE ORGANICS BY GC/MS

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=====
Client      : TETRA TECH FW INC.      Date Collected: 12/13/04
Project     : MFA SITE 1, CTO 86     Date Received: 12/15/04
Batch No.   : 04L115                 Date Extracted: 12/20/04 16:00
Sample ID   : 86-S1-075              Date Analyzed: 12/22/04 20:50
Lab Samp ID : L115-04                Dilution Factor: 94
Lab File ID : RLH267                 Matrix: WATER
Ext Btch ID : SVL023W                % Moisture: NA
Calib. Ref. : RLH007                 Instrument ID: T-041
=====
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| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 2,4,5-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4,6-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DIMETHYLPHENOL | ND | 9.4 | 4.7 |
| 2,4-DINITROPHENOL | ND | 19 | 9.4 |
| 2,4-DINITROTOLUENE | ND | 19 | 9.4 |
| 2,6-DINITROTOLUENE | ND | 9.4 | 5.6 |
| 2-CHLORONAPHTHALENE | ND | 9.4 | 4.7 |
| 2-CHLOROPHENOL | ND | 9.4 | 4.7 |
| 2-METHYLNAPHTHALENE | ND | 9.4 | 4.7 |
| 2-METHYLPHENOL | ND | 19 | 5.6 |
| 2-NITROANILINE | ND | 9.4 | 4.7 |
| 2-NITROPHENOL | ND | 9.4 | 4.7 |
| 3,3'-DICHLOROBENZIDINE | ND | 9.4 | 4.7 |
| 3-NITROANILINE | ND | 19 | 9.4 |
| 4,6-DINITRO-2-METHYLPHENOL | ND | 19 | 6.6 |
| 4-BROMOPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-CHLORO-3-METHYLPHENOL | ND | 9.4 | 4.7 |
| 4-CHLORANILINE | ND | 9.4 | 4.7 |
| 4-CHLOROPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-METHYLPHENOL (1) | ND | 9.4 | 4.7 |
| 4-NITROANILINE | ND | 19 | 4.7 |
| 4-NITROPHENOL | ND | 9.4 | 4.7 |
| ACENAPHTHENE | ND | 9.4 | 4.7 |
| ACENAPHTHYLENE | ND | 9.4 | 4.7 |
| ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)PYRENE | ND | 9.4 | 4.7 |
| BENZO(B)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(K)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(G,H,I)PERYLENE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHOXY)METHANE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-CHLOROISOPROPYL)ETHER | ND | 19 | 4.7 |
| BIS(2-ETHYLHEXYL)PHTHALATE | ND | 9.4 | 4.7 |
| BUTYLBENZYLPHTHALATE | ND | 9.4 | 4.7 |
| CHRYSENE | ND | 9.4 | 4.7 |
| DI-N-BUTYLPHTHALATE | ND | 9.4 | 4.7 |
| DI-N-OCTYLPHTHALATE | ND | 9.4 | 4.7 |
| DIBENZO(A,H)ANTHRACENE | ND | 9.4 | 4.7 |
| DIBENZOFURAN | ND | 19 | 5.6 |
| DIETHYLPHTHALATE | ND | 19 | 4.7 |
| DIMETHYLPHTHALATE | ND | 9.4 | 4.7 |
| FLUORANTHENE | ND | 9.4 | 4.7 |
| FLUORENE | ND | 19 | 5.6 |
| HEXACHLOROBENZENE | ND | 9.4 | 4.7 |
| HEXACHLOROCYCLOPENTADIENE | ND | 9.4 | 4.7 |
| HEXACHLOROETHANE | ND | 9.4 | 4.7 |
| INDENO(1,2,3-CD)PYRENE | ND | 9.4 | 4.7 |
| ISOPHORONE | ND | 9.4 | 4.7 |
| N-NITROSO-DI-N-PROPYLAMINE | ND | 9.4 | 4.7 |
| N-NITROSODIPHENYLAMINE (2) | ND | 9.4 | 4.7 |
| NITROBENZENE | ND | 9.4 | 4.7 |
| PENTACHLOROPHENOL | ND | 19 | 5.6 |
| PHENANTHRENE | ND | 9.4 | 4.7 |
| PHENOL | ND | 9.4 | 4.7 |
| PYRENE | ND | 9.4 | 4.7 |
| 1,1'-BIPHENYL | ND | 9.4 | 4.7 |
| ACETOPHENONE | ND | 19 | 9.4 |
| ATRAZINE | ND | 9.4 | 4.7 |
| BENZALDEHYDE | ND | 9.4 | 4.7 |
| CAPROLACTAM | ND | 9.4 | 4.7 |
| CARBAZOLE | ND | 9.4 | 4.7 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| 2,4,6-TRIBROMOPHENOL | 77 | 25-134 |
| 2-FLUOROBIPHENYL | 75 | 43-125 |
| 2-FLUOROPHENOL | 65 | 25-125 |
| NITROBENZENE-D5 | 77 | 36-125 |
| PHENOL-D5 | 69 | 25-125 |
| TERPHENYL-D14 | 100 | 42-126 |

XL: Reporting Limit
 1): Cannot be separated from 3-Methylphenol
 2): Cannot be separated from Diphenylamine

SW 3520C/8270C
 SEMI VOLATILE ORGANICS BY GC/MS

| | |
|-------------------------------|--------------------------------|
| Client : TETRA TECH. FW, INC. | Date Collected: 12/13/04 |
| Project : MFA, SITE 1, CTO 86 | Date Received: 12/15/04 |
| Batch No. : D4L115 | Date Extracted: 12/20/04 16:00 |
| Sample ID: 86-S1-076 | Date Analyzed: 12/22/04 21:17 |
| Lab Samp ID: L115-05 | Dilution Factor: .94 |
| Lab File ID: RLH268 | Matrix : WATER |
| Ext Btch ID: SVL023W | % Moisture : NA |
| Calib. Ref.: RLH007 | Instrument ID : T-041 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 2,4,5-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4,6-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DIMETHYLPHENOL | ND | 9.4 | 4.7 |
| 2,4-DINITROPHENOL | ND | 19 | 9.4 |
| 2,4-DINITROTOLUENE | ND | 19 | 9.4 |
| 2,6-DINITROTOLUENE | ND | 19 | 5.6 |
| 2-CHLORONAPHTHALENE | ND | 9.4 | 4.7 |
| 2-CHLOROPHENOL | ND | 9.4 | 4.7 |
| 2-METHYLNAPHTHALENE | ND | 9.4 | 4.7 |
| 2-METHYLPHENOL | ND | 9.4 | 4.7 |
| 2-NITROANILINE | ND | 19 | 5.6 |
| 2-NITROPHENOL | ND | 9.4 | 4.7 |
| 3,3'-DICHLOROBENZIDINE | ND | 9.4 | 4.7 |
| 3-NITROANILINE | ND | 9.4 | 4.7 |
| 4,6-DINITRO-2-METHYLPHENOL | ND | 19 | 9.4 |
| 4-BROMOPHENYL-PHENYL ETHER | ND | 19 | 6.6 |
| 4-CHLORO-3-METHYLPHENOL | ND | 9.4 | 4.7 |
| 4-CHLOROANILINE | ND | 9.4 | 4.7 |
| 4-CHLOROPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-METHYLPHENOL (1) | ND | 9.4 | 4.7 |
| 4-NITROANILINE | ND | 9.4 | 4.7 |
| 4-NITROPHENOL | ND | 19 | 4.7 |
| ACENAPHTHENE | ND | 9.4 | 4.7 |
| ACENAPHTHYLENE | ND | 9.4 | 4.7 |
| ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)PYRENE | ND | 9.4 | 4.7 |
| BENZO(B)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(K)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(G,H,I)PERYLENE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHOXY)METHANE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-CHLOROISOPROPYL)ETHER | ND | 19 | 9.4 |
| BIS(2-ETHYLHEXYL)PHTHALATE | ND | 9.4 | 4.7 |
| BUTYLBENZYLPHTHALATE | ND | 9.4 | 4.7 |
| CHRYSENE | ND | 9.4 | 4.7 |
| DI-N-BUTYLPHTHALATE | ND | 9.4 | 4.7 |
| DI-N-OCTYLPHTHALATE | ND | 9.4 | 4.7 |
| DIBENZO(A,H)ANTHRACENE | ND | 9.4 | 4.7 |
| DIBENZOFURAN | ND | 19 | 4.7 |
| DIETHYLPHTHALATE | ND | 19 | 5.6 |
| DIMETHYLPHTHALATE | ND | 9.4 | 4.7 |
| FLUORANTHENE | ND | 9.4 | 4.7 |
| FLUORENE | ND | 19 | 5.6 |
| HEXACHLOROBENZENE | ND | 9.4 | 4.7 |
| HEXACHLOROCYCLOPENTADIENE | ND | 9.4 | 4.7 |
| HEXACHLOROETHANE | ND | 9.4 | 4.7 |
| INDENO(1,2,3-CD)PYRENE | ND | 9.4 | 4.7 |
| ISOPHORONE | ND | 9.4 | 4.7 |
| N-NITROSO-DI-N-PROPYLAMINE | ND | 9.4 | 4.7 |
| N-NITROSODIPHENYLAMINE (2) | ND | 9.4 | 4.7 |
| NITROBENZENE | ND | 9.4 | 4.7 |
| PENTACHLOROPHENOL | ND | 19 | 9.4 |
| PHENANTHRENE | ND | 19 | 5.6 |
| PHENOL | ND | 9.4 | 4.7 |
| PYRENE | ND | 9.4 | 4.7 |
| 1,1'-BIPHENYL | ND | 9.4 | 4.7 |
| ACETOPHENONE | ND | 19 | 6.4 |
| ATRAZINE | ND | 9.4 | 4.7 |
| BENZALDEHYDE | ND | 9.4 | 4.7 |
| CAPROLACTAM | ND | 9.4 | 4.7 |
| CARBAZOLE | ND | 9.4 | 4.7 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| 2,4,6-TRIBROMOPHENOL | 81 | 25-134 |
| 2-FLUOROBIPHENYL | 81 | 43-125 |
| 2-FLUOROPHENOL | 74 | 25-125 |
| NITROBENZENE-D5 | 83 | 32-125 |
| PHENOL-D5 | 74 | 25-125 |
| TERPHENYL-D14 | 113 | 42-126 |

RL: Reporting Limit
 (1): Cannot be separated from 3-Methylphenol
 (2): Cannot be separated from Diphenylamine

SW 3520C/8270C
 SEMI VOLATILE ORGANICS BY GC/MS

| | |
|-------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 12/13/04 |
| Project : MFA, SITE 1, CTO 86 | Date Received: 12/15/04 |
| Batch No. : 04115 | Date Extracted: 12/20/04 16:00 |
| Sample ID: 86-S1-077 | Date Analyzed: 12/22/04 21:45 |
| Lab Samp ID: L115-06 | Dilution Factor: .94 |
| Lab File ID: RLH269 | Matrix : WATER |
| Ext Btch ID: SVL023W | % Moisture : NA |
| Calib. Ref.: RLH007 | Instrument ID : T-041 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 2,4,5-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4,6-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DICHLOROPHENOL | ND | 9.4 | 4.7 |
| 4-DIMETHYLPHENOL | ND | 9.4 | 4.7 |
| 4-DINITROPHENOL | ND | 19 | 9.4 |
| 4-DINITROTOLUENE | ND | 19 | 9.4 |
| 2,6-DINITROTOLUENE | ND | 19 | 5.6 |
| 2-CHLORONAPHTHALENE | ND | 9.4 | 4.7 |
| 2-CHLOROPHENOL | ND | 9.4 | 4.7 |
| 2-METHYLNAPHTHALENE | ND | 9.4 | 4.7 |
| 2-METHYLPHENOL | ND | 9.4 | 4.7 |
| 2-NITROANILINE | ND | 19 | 5.6 |
| 2-NITROPHENOL | ND | 9.4 | 4.7 |
| 3,3'-DICHLOROBENZIDINE | ND | 9.4 | 4.7 |
| 3-NITROANILINE | ND | 9.4 | 4.7 |
| 4,6-DINITRO-2-METHYLPHENOL | ND | 19 | 9.4 |
| 4-BROMOPHENYL-PHENYL ETHER | ND | 19 | 6.6 |
| 4-CHLORO-3-METHYLPHENOL | ND | 9.4 | 4.7 |
| 4-CHLOROANILINE | ND | 9.4 | 4.7 |
| 4-CHLOROPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-METHYLPHENOL (1) | ND | 9.4 | 4.7 |
| 4-NITROANILINE | ND | 9.4 | 4.7 |
| 4-NITROPHENOL | ND | 19 | 4.7 |
| ACENAPHTHENE | ND | 9.4 | 4.7 |
| ACENAPHTHYLENE | ND | 9.4 | 4.7 |
| ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)PYRENE | ND | 9.4 | 4.7 |
| BENZO(B)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(K)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(G,H,I)PERYLENE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHOXY)METHANE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-CHLOROISOPROPYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-ETHYLHEXYL)PHTHALATE | ND | 19 | 9.4 |
| BUTYLBENZYLPHTHALATE | ND | 9.4 | 4.7 |
| CHRYSENE | ND | 9.4 | 4.7 |
| DI-N-BUTYLPHTHALATE | ND | 9.4 | 4.7 |
| DI-N-OCTYLPHTHALATE | ND | 9.4 | 4.7 |
| DIBENZO(A,H)ANTHRACENE | ND | 9.4 | 4.7 |
| DIBENZOFURAN | ND | 9.4 | 4.7 |
| DIETHYLPHTHALATE | ND | 19 | 5.6 |
| DIMETHYLPHTHALATE | ND | 19 | 4.7 |
| FLUORANTHENE | ND | 9.4 | 4.7 |
| FLUORENE | ND | 9.4 | 4.7 |
| HEXACHLOROBENZENE | ND | 19 | 5.6 |
| HEXACHLOROCYCLOPENTADIENE | ND | 9.4 | 4.7 |
| HEXACHLOROETHANE | ND | 9.4 | 4.7 |
| INDENO(1,2,3-CD)PYRENE | ND | 9.4 | 4.7 |
| ISOPHORONE | ND | 9.4 | 4.7 |
| N-NITROSO-DI-N-PROPYLAMINE | ND | 9.4 | 4.7 |
| N-NITROSO-DIPHENYLAMINE (2) | ND | 9.4 | 4.7 |
| NITROBENZENE | ND | 9.4 | 4.7 |
| 2-NITROCHLOROPHENOL | ND | 19 | 9.4 |
| PHENANTHRENE | ND | 19 | 5.6 |
| PHENOL | ND | 9.4 | 4.7 |
| PYRENE | ND | 9.4 | 4.7 |
| 1,1'-BIPHENYL | ND | 9.4 | 4.7 |
| ACETOPHENONE | ND | 9.4 | 2.3 |
| ATRAZINE | ND | 19 | 9.4 |
| BENZALDEHYDE | ND | 9.4 | 4.7 |
| CAPROLACTAM | ND | 9.4 | 4.7 |
| CARBAZOLE | ND | 9.4 | 4.7 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| 2,4,6-TRIBROMOPHENOL | 73 | 25-134 |
| 2-FLUOROBIPHENYL | 79 | 23-125 |
| 2-FLUOROPHENOL | 71 | 25-125 |
| NITROBENZENE-D5 | 82 | 32-125 |
| PHENOL-D5 | 72 | 25-125 |
| TERPHENYL-D14 | 109 | 42-126 |

RL: Reporting Limit
 (1): Cannot be separated from 3-Methylphenol
 (2): Cannot be separated from Diphenylamine

SW 3520C/8270C
 SEMI VOLATILE ORGANICS BY GC/MS

| | |
|------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 12/14/04 |
| Project : MFA SITE 1, CTO 86 | Date Received: 12/15/04 |
| Batch No. : 04L115 | Date Extracted: 12/20/04 16:00 |
| Sample ID: 86-S1-078 | Date Analyzed: 12/22/04 22:13 |
| Lab Samp ID: L115-07 | Dilution Factor: .94 |
| Lab File ID: RLH270 | Matrix : WATER |
| Ext Btch ID: SVL023W | % Moisture : NA |
| Calib. Ref.: RLH007 | Instrument ID : T-041 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 2,4,5-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4,6-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DIMETHYLPHENOL | ND | 9.4 | 4.7 |
| 2,4-DINITROPHENOL | ND | 19 | 9.4 |
| 2,4-DINITROTOLUENE | ND | 19 | 9.4 |
| 2,6-DINITROTOLUENE | ND | 19 | 5.6 |
| 2-CHLORONAPHTHALENE | ND | 9.4 | 4.7 |
| 2-CHLOROPHENOL | ND | 9.4 | 4.7 |
| 2-METHYLNAPHTHALENE | ND | 9.4 | 4.7 |
| 2-METHYLPHENOL | ND | 19 | 5.6 |
| 2-NITROANILINE | ND | 9.4 | 4.7 |
| 2-NITROPHENOL | ND | 9.4 | 4.7 |
| 3,3'-DICHLOROBENZIDINE | ND | 9.4 | 4.7 |
| 3-NITROANILINE | ND | 19 | 9.4 |
| 4,6-DINITRO-2-METHYLPHENOL | ND | 19 | 6.6 |
| 4-BROMOPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-CHLORO-3-METHYLPHENOL | ND | 9.4 | 4.7 |
| 4-CHLORODANILINE | ND | 9.4 | 4.7 |
| 4-CHLOROPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-METHYLPHENOL (1) | ND | 9.4 | 4.7 |
| 4-NITROANILINE | ND | 19 | 4.7 |
| 4-NITROPHENOL | ND | 9.4 | 4.7 |
| ACENAPHTHENE | ND | 9.4 | 4.7 |
| ACENAPHTHYLENE | ND | 9.4 | 4.7 |
| ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)PYRENE | ND | 9.4 | 4.7 |
| BENZO(B)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(K)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(G,H,I)PERYLENE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHOXY)METHANE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-CHLOROISOPROPYL)ETHER | ND | 19 | 9.4 |
| BIS(2-ETHYLMXYL)PHTHALATE | ND | 9.4 | 4.7 |
| BUTYLBENZYLPHTHALATE | ND | 9.4 | 4.7 |
| CHRYSENE | ND | 9.4 | 4.7 |
| DI-N-BUTYLPHTHALATE | ND | 9.4 | 4.7 |
| DI-N-OCTYLPHTHALATE | ND | 9.4 | 4.7 |
| DIBENZO(A,H)ANTHRACENE | ND | 9.4 | 4.7 |
| DIBENZOFURAN | ND | 19 | 5.6 |
| DIETHYLPHTHALATE | ND | 19 | 4.7 |
| DIMETHYLPHTHALATE | ND | 9.4 | 4.7 |
| FLUORANTHENE | ND | 9.4 | 4.7 |
| FLUORENE | ND | 19 | 5.6 |
| HEXACHLOROBENZENE | ND | 9.4 | 4.7 |
| HEXACHLOROCYCLOPENTADIENE | ND | 9.4 | 4.7 |
| HEXACHLOROETHANE | ND | 9.4 | 4.7 |
| INDENO(1,2,3-CD)PYRENE | ND | 9.4 | 4.7 |
| ISOPHORONE | ND | 9.4 | 4.7 |
| N-NITROSO-DI-N-PROPYLAMINE | ND | 9.4 | 4.7 |
| N-NITROSODIPHENYLAMINE (2) | ND | 9.4 | 4.7 |
| NITROBENZENE | ND | 19 | 9.4 |
| PENTACHLOROPHENOL | ND | 19 | 5.6 |
| PHENANTHRENE | ND | 9.4 | 4.7 |
| PHENOL | ND | 9.4 | 4.7 |
| PYRENE | ND | 9.4 | 4.7 |
| 1,1'-BIPHENYL | ND | 9.4 | 4.7 |
| ACETOPHENONE | ND | 19 | 9.4 |
| ATRAZINE | ND | 9.4 | 4.7 |
| BENZALDEHYDE | ND | 9.4 | 4.7 |
| CAPROLACTAM | ND | 9.4 | 4.7 |
| CARBAZOLE | ND | 9.4 | 4.7 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| 2,4,6-TRIBROMOPHENOL | 81 | 25-134 |
| 2-FLUOROBIPHENYL | 85 | 43-125 |
| 2-FLUOROPHENOL | 83 | 25-125 |
| 2-NITROBENZENE-D5 | 89 | 32-125 |
| PHENOL-D5 | 87 | 25-125 |
| TERPHENYL-D14 | 103 | 42-126 |

RL: Reporting Limit
 (1): Cannot be separated from 3-Methylphenol
 (2): Cannot be separated from Diphenylamine

SW 3520C/8270C
 SEMI VOLATILE ORGANICS BY GC/MS

| | |
|------------------------------|--------------------------------|
| Client : YETRA TECH FW, INC. | Date Collected: 12/14/04 |
| Project : MFA SITE 1, CTO 86 | Date Received: 12/15/04 |
| Batch No. : 04L115 | Date Extracted: 12/20/04 16:00 |
| Sample ID: 86-S1-079 | Date Analyzed: 12/22/04 22:40 |
| Lab Samp ID: L115-08 | Dilution Factor: .94 |
| Lab File ID: RLH271 | Matrix : WATER |
| Ext Btch ID: SVL023W | % Moisture : NA |
| Calib. Ref.: RLH007 | Instrument ID : T-041 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 2,4,5-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4,6-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DIMETHYLPHENOL | ND | 9.4 | 4.7 |
| 2,4-DINITROPHENOL | ND | 19 | 9.4 |
| 2,4-DINITROTOLUENE | ND | 19 | 9.4 |
| 2,6-DINITROTOLUENE | ND | 19 | 5.6 |
| 2-CHLORONAPHTHALENE | ND | 9.4 | 4.7 |
| 2-CHLOROPHENOL | ND | 9.4 | 4.7 |
| 2-METHYLNAPHTHALENE | ND | 9.4 | 4.7 |
| 2-METHYLPHENOL | ND | 9.4 | 4.7 |
| 2-NITROANILINE | ND | 19 | 5.6 |
| 2-NITROPHENOL | ND | 9.4 | 4.7 |
| 3,3'-DICHLOROBENZIDINE | ND | 9.4 | 4.7 |
| 3-NITROANILINE | ND | 19 | 9.4 |
| 4,6-DINITRO-2-METHYLPHENOL | ND | 19 | 6.6 |
| 4-BROMOPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-CHLORO-3-METHYLPHENOL | ND | 9.4 | 4.7 |
| 4-CHLOROANILINE | ND | 9.4 | 4.7 |
| 4-CHLOROPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-METHYLPHENOL (1) | ND | 9.4 | 4.7 |
| 4-NITROANILINE | ND | 9.4 | 4.7 |
| 4-NITROPHENOL | ND | 19 | 4.7 |
| ACENAPHTHENE | ND | 9.4 | 4.7 |
| ACENAPHTHYLENE | ND | 9.4 | 4.7 |
| ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)PYRENE | ND | 9.4 | 4.7 |
| BENZO(B)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(K)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(G,H,I)PERYLENE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHOXY)METHANE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-CHLOROISOPROPYL)ETHER | ND | 19 | 9.4 |
| BIS(2-ETHYLHEXYL)PHTHALATE | ND | 9.4 | 4.7 |
| BUTYLBENZYLPHTHALATE | ND | 9.4 | 4.7 |
| CHRYSENE | ND | 9.4 | 4.7 |
| DI-N-BUTYLPHTHALATE | ND | 9.4 | 4.7 |
| DI-N-OCTYLPHTHALATE | ND | 9.4 | 4.7 |
| DIBENZO(A,H)ANTHRACENE | ND | 9.4 | 4.7 |
| DIBENZOFURAN | ND | 9.4 | 4.7 |
| DIETHYLPHTHALATE | ND | 19 | 5.6 |
| DIMETHYLPHTHALATE | ND | 19 | 4.7 |
| FLUORANTHENE | ND | 9.4 | 4.7 |
| FLUORENE | ND | 9.4 | 4.7 |
| HEXACHLOROBENZENE | ND | 19 | 5.6 |
| HEXACHLOROCYCLOPENTADIENE | ND | 9.4 | 4.7 |
| HEXACHLOROETHANE | ND | 9.4 | 4.7 |
| INDENO(1,2,3-CD)PYRENE | ND | 9.4 | 4.7 |
| ISOPHORONE | ND | 9.4 | 4.7 |
| 4-NITROSO-DI-N-PROPYLAMINE | ND | 9.4 | 4.7 |
| 4-NITROSO-DIPHENYLAMINE (2) | ND | 9.4 | 4.7 |
| NITROBENZENE | ND | 9.4 | 4.7 |
| 2,5-DICHLOROPHENOL | ND | 19 | 9.4 |
| 2-PHENANTHRENE | ND | 19 | 5.6 |
| PHENOL | ND | 9.4 | 4.7 |
| PYRENE | ND | 9.4 | 4.7 |
| 4,4'-BIPHENYL | ND | 9.4 | 4.7 |
| ACETOPHENONE | ND | 9.4 | 2.3 |
| ATRAZINE | ND | 19 | 9.4 |
| BENZALDEHYDE | ND | 9.4 | 4.7 |
| CAPROLACTAM | ND | 9.4 | 4.7 |
| CARBAZOLE | ND | 9.4 | 4.7 |
| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT | |
| 2,4,6-TRIBROMOPHENOL | 74 | 25-134 | |
| 2-FLUOROBIPHENYL | 74 | 43-125 | |
| 2-FLUOROPHENOL | 70 | 25-125 | |
| NITROBENZENE-D5 | 82 | 32-125 | |
| PHENOL-D5 | 71 | 25-125 | |
| TERPHENYL-D14 | 106 | 42-126 | |

RL: Reporting Limit
 (1): Cannot be separated from 3-Methylphenol
 (2): Cannot be separated from Diphenylamine

SW 3520C/8270C
 SEMI VOLATILE ORGANICS BY GC/MS

| | |
|-------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 12/14/04 |
| Project : MFA, SITE 1, CTO B6 | Date Received: 12/15/04 |
| Batch No. : 04L115 | Date Extracted: 12/20/04 16:00 |
| Sample ID: 86-S1-080 | Date Analyzed: 12/22/04 23:08 |
| Lab Samp ID: L115-09 | Dilution Factor: .94 |
| Lab File ID: RLH272 | Matrix : WATER |
| Ext Btch ID: SVL023W | % Moisture : NA |
| Calib. Ref.: RLH007 | Instrument ID : T-041 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 2,4,5-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4,6-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DIMETHYLPHENOL | ND | 9.4 | 4.7 |
| 2,4-DINITROPHENOL | ND | 19 | 9.4 |
| 2,4-DINITROTOLUENE | ND | 19 | 9.4 |
| 2,6-DINITROTOLUENE | ND | 19 | 5.6 |
| 2-CHLORONAPHTHALENE | ND | 9.4 | 4.7 |
| 2-CHLOROPHENOL | ND | 9.4 | 4.7 |
| 2-METHYLNAPHTHALENE | ND | 9.4 | 4.7 |
| 2-METHYLPHENOL | ND | 9.4 | 4.7 |
| 2-NITROANILINE | ND | 19 | 5.6 |
| 2-NITROPHENOL | ND | 9.4 | 4.7 |
| 3,5-DICHLOROBENZIDINE | ND | 9.4 | 4.7 |
| 3-NITROANILINE | ND | 9.4 | 4.7 |
| 4,6-DINITRO-2-METHYLPHENOL | ND | 19 | 9.4 |
| 4-BROMOPHENYL-PHENYL ETHER | ND | 19 | 6.6 |
| 4-CHLORO-3-METHYLPHENOL | ND | 9.4 | 4.7 |
| 4-CHLOROANILINE | ND | 9.4 | 4.7 |
| 4-CHLOROPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-METHYLPHENOL (1) | ND | 9.4 | 4.7 |
| 4-NITROANILINE | ND | 9.4 | 4.7 |
| 4-NITROPHENOL | ND | 19 | 4.7 |
| ACENAPHTHENE | ND | 9.4 | 4.7 |
| ACENAPHTHYLENE | ND | 9.4 | 4.7 |
| ANTHRACENE | ND | 9.4 | 4.7 |
| BENZ(D,A)ANTHRACENE | ND | 9.4 | 4.7 |
| BENZ(D,A)PYRENE | ND | 9.4 | 4.7 |
| BENZ(D,B)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZ(D,K)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZ(D,G,H,I)PERYLENE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHOXY)METHANE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-CHLOROISOPROPYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-ETHYLNEXYL)PHTHALATE | ND | 19 | 9.4 |
| BUTYLBENZYLPHTHALATE | ND | 9.4 | 4.7 |
| CHRYSENE | ND | 9.4 | 4.7 |
| DI-N-BUTYLPHTHALATE | ND | 9.4 | 4.7 |
| DI-N-OCTYLPHTHALATE | ND | 9.4 | 4.7 |
| DIBENZ(D,A,H)ANTHRACENE | ND | 9.4 | 4.7 |
| DIBENZOFURAN | ND | 9.4 | 4.7 |
| DIETHYLPHTHALATE | ND | 19 | 5.6 |
| DIMETHYLPHTHALATE | ND | 9.4 | 4.7 |
| FLUORANTHENE | ND | 9.4 | 4.7 |
| FLUORENE | ND | 19 | 5.6 |
| HEXACHLOROBENZENE | ND | 9.4 | 4.7 |
| HEXACHLOROCYCLOPENTADIENE | ND | 9.4 | 4.7 |
| HEXACHLOROETHANE | ND | 9.4 | 4.7 |
| INDENO(1,2,3-CD)PYRENE | ND | 9.4 | 4.7 |
| ISOPHORONE | ND | 9.4 | 4.7 |
| N-NITROSO-DI-N-PROPYLAMINE | ND | 9.4 | 4.7 |
| N-NITROSODIPHENYLAMINE (2) | ND | 9.4 | 4.7 |
| NITROBENZENE | ND | 9.4 | 4.7 |
| PENTACHLOROPHENOL | ND | 19 | 9.4 |
| PHENANTHRENE | ND | 19 | 5.6 |
| PHENOL | ND | 9.4 | 4.7 |
| PYRENE | ND | 9.4 | 4.7 |
| 1,1'-BIPHENYL | ND | 9.4 | 4.7 |
| ACETOPHENONE | ND | 19 | 9.4 |
| ATRAZINE | ND | 9.4 | 4.7 |
| BENZALDEHYDE | ND | 9.4 | 4.7 |
| CAPROLACTAM | ND | 9.4 | 4.7 |
| CARBAZOLE | ND | 9.4 | 4.7 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| 2,4,6-TRIBROMOPHENOL | 69 | 25-134 |
| 2-FLUOROBIPHENYL | 74 | 43-125 |
| 2-FLUOROPHENOL | 67 | 25-125 |
| NITROBENZENE-D5 | 85 | 32-125 |
| PHENOL-D5 | 70 | 25-125 |
| TERPHENYL-D14 | 103 | 42-126 |

RL: Reporting Limit
 (1): Cannot be separated from 3-Methylphenol
 (2): Cannot be separated from Diphenylamine

SW 3520C/8270C
 SEMI VOLATILE ORGANICS BY GC/MS

| | |
|-------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 12/14/04 |
| Project : MFA, SITE 1, CTO 86 | Date Received: 12/15/04 |
| Batch No. : 04L115 | Date Extracted: 12/20/04 16:00 |
| Sample ID: 86-S1-081 | Date Analyzed: 12/22/04 23:35 |
| Lab Samp ID: L115-10 | Dilution Factor: .94 |
| Lab File ID: RLH273 | Matrix : WATER |
| Ext Btch ID: SVL023W | % Moisture : NA |
| Calib. Ref.: RLH007 | Instrument ID : T-041 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 2,4,5-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4,6-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DIMETHYLPHENOL | ND | 9.4 | 4.7 |
| 2,4-DINITROPHENOL | ND | 19 | 9.4 |
| 2,4-DINITROTOLUENE | ND | 19 | 9.4 |
| 2,6-DINITROTOLUENE | ND | 19 | 5.6 |
| 2-CHLORONAPHTHALENE | ND | 9.4 | 4.7 |
| 2-CHLOROPHENOL | ND | 9.4 | 4.7 |
| 2-METHYLNAPHTHALENE | ND | 9.4 | 4.7 |
| 2-METHYLPHENOL | ND | 9.4 | 4.7 |
| 2-NITROANILINE | ND | 19 | 5.6 |
| 2-NITROPHENOL | ND | 9.4 | 4.7 |
| 3,3'-DICHLOROBENZIDINE | ND | 9.4 | 4.7 |
| 3-NITROANILINE | ND | 19 | 9.4 |
| 4,6-DINITRO-2-METHYLPHENOL | ND | 19 | 6.6 |
| 4-BROMOPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-CHLORO-3-METHYLPHENOL | ND | 9.4 | 4.7 |
| 4-CHLOROANILINE | ND | 9.4 | 4.7 |
| 4-CHLOROPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-METHYLPHENOL (1) | ND | 9.4 | 4.7 |
| 4-NITROANILINE | ND | 9.4 | 4.7 |
| 4-NITROPHENOL | ND | 19 | 4.7 |
| ACENAPHTHENE | ND | 9.4 | 4.7 |
| ACENAPHTHYLENE | ND | 9.4 | 4.7 |
| ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)PYRENE | ND | 9.4 | 4.7 |
| BENZO(B)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(K)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(G,H,I)PERYLENE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHOXY)METHANE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-CHLOROISOPROPYL)ETHER | ND | 19 | 9.4 |
| BIS(2-ETHYLHEXYL)PHTHALATE | ND | 9.4 | 4.7 |
| BUTYLBENZYLPHTHALATE | ND | 9.4 | 4.7 |
| CHRYSENE | ND | 9.4 | 4.7 |
| DI-N-BUTYLPHTHALATE | ND | 9.4 | 4.7 |
| DI-N-OCTYLPHTHALATE | ND | 9.4 | 4.7 |
| DIBENZO(A,H)ANTHRACENE | ND | 9.4 | 4.7 |
| DIBENZOFURAN | ND | 9.4 | 4.7 |
| DIETHYLPHTHALATE | ND | 19 | 5.6 |
| DIMETHYLPHTHALATE | ND | 19 | 4.7 |
| FLUORANTHENE | ND | 9.4 | 4.7 |
| FLUORENE | ND | 9.4 | 4.7 |
| HEXACHLOROBENZENE | ND | 19 | 5.6 |
| HEXACHLOROCYCLOPENTADIENE | ND | 9.4 | 4.7 |
| HEXACHLOROETHANE | ND | 9.4 | 4.7 |
| INDENO(1,2,3-CD)PYRENE | ND | 9.4 | 4.7 |
| ISOPHORONE | ND | 9.4 | 4.7 |
| N-NITROSO-DI-N-PROPYLAMINE | ND | 9.4 | 4.7 |
| N-NITROSODIPHENYLAMINE (2) | ND | 9.4 | 4.7 |
| NITROBENZENE | ND | 9.4 | 4.7 |
| PENTACHLOROPHENOL | ND | 19 | 9.4 |
| PHENANTHRENE | ND | 19 | 5.6 |
| PHENOL | ND | 9.4 | 4.7 |
| PYRENE | ND | 9.4 | 4.7 |
| 1,1'-BIPHENYL | ND | 9.4 | 4.7 |
| ACETOPHENONE | ND | 9.4 | 2.3 |
| ATRAZINE | ND | 19 | 9.4 |
| BENZALDEHYDE | ND | 9.4 | 4.7 |
| CAPROLACTAM | ND | 9.4 | 4.7 |
| CARBAZOLE | ND | 9.4 | 4.7 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| 2,4,6-TRIBROMOPHENOL | 68 | 25-134 |
| 2-FLUOROBIPHENYL | 79 | 43-125 |
| 2-FLUDROPHENOL | 77 | 25-125 |
| NITROBENZENE-D5 | 92 | 32-125 |
| PHENOL-D5 | 76 | 25-125 |
| TERPHENYL-D14 | 100 | 42-126 |

RL: Reporting Limit
 (1): Cannot be separated from 3-Methylphenol
 (2): Cannot be separated from Diphenylamine

SW 3520C/8270C
SEMI VOLATILE ORGANICS BY GC/MS

| | |
|-------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 12/14/04 |
| Project : MFA, SITE 1, CTO 86 | Date Received: 12/15/04 |
| Batch No. : 04L115 | Date Extracted: 12/20/04 16:00 |
| Sample ID: 86-S1-082 | Date Analyzed: 12/23/04 00:03 |
| Lab Samp ID: L115-11 | Dilution Factor: .94 |
| Lab File ID: RLH274 | Matrix : WATER |
| Ext Btch ID: SVL023W | % Moisture : NA |
| Calib. Ref.: RLH007 | Instrument ID : T-041 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 2,4,5-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4,6-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DIMETHYLPHENOL | ND | 9.4 | 4.7 |
| 2,4-DINITROPHENOL | ND | 19 | 9.4 |
| 2,4-DINITROTOLUENE | ND | 19 | 9.4 |
| 2,6-DINITROTOLUENE | ND | 19 | 5.6 |
| 2-CHLORONAPHTHALENE | ND | 9.4 | 4.7 |
| 2-CHLOROPHENOL | ND | 9.4 | 4.7 |
| 2-METHYLNAPHTHALENE | ND | 9.4 | 4.7 |
| 2-METHYLPHENOL | ND | 9.4 | 4.7 |
| 2-NITROANILINE | ND | 19 | 5.6 |
| 2-NITROPHENOL | ND | 9.4 | 4.7 |
| 3,3'-DICHLOROBENZIDINE | ND | 9.4 | 4.7 |
| 3-NITROANILINE | ND | 9.4 | 4.7 |
| 2,6-DINITRO-2-METHYLPHENOL | ND | 19 | 9.4 |
| 4-BROMOPHENYL-PHENYL ETHER | ND | 19 | 6.6 |
| 4-CHLORO-3-METHYLPHENOL | ND | 9.4 | 4.7 |
| 4-CHLOROANILINE | ND | 9.4 | 4.7 |
| 4-CHLOROPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-METHYLPHENOL (1) | ND | 9.4 | 4.7 |
| 4-NITROANILINE | ND | 9.4 | 4.7 |
| 4-NITROPHENOL | ND | 19 | 4.7 |
| ACENAPHTHENE | ND | 9.4 | 4.7 |
| ACENAPHTHYLENE | ND | 9.4 | 4.7 |
| ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)ANTHRACENE | ND | 9.4 | 4.7 |
| BENZO(A)PYRENE | ND | 9.4 | 4.7 |
| BENZO(B)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(K)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(G,H,I)PERYLENE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHOXY)METHANE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-CHLOROISOPROPYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-ETHYLHEXYL)PHTHALATE | ND | 19 | 9.4 |
| BUTYLBENZYLPHTHALATE | ND | 9.4 | 4.7 |
| CHRYSENE | ND | 9.4 | 4.7 |
| DI-N-BUTYLPHTHALATE | ND | 9.4 | 4.7 |
| DI-N-OCTYLPHTHALATE | ND | 9.4 | 4.7 |
| DIBENZO(A,H)ANTHRACENE | ND | 9.4 | 4.7 |
| DIBENZOFURAN | ND | 9.4 | 4.7 |
| DIETHYLPHTHALATE | ND | 19 | 5.6 |
| DIMETHYLPHTHALATE | ND | 9.4 | 4.7 |
| FLUORANTHENE | ND | 9.4 | 4.7 |
| FLUORENE | ND | 19 | 5.6 |
| HEXACHLOROBENZENE | ND | 9.4 | 4.7 |
| HEXACHLOROCHLOROPENTADIENE | ND | 9.4 | 4.7 |
| HEXACHLOROETHANE | ND | 9.4 | 4.7 |
| INDENO(1,2,3-CD)PYRENE | ND | 9.4 | 4.7 |
| ISOPHORONE | ND | 9.4 | 4.7 |
| N-NITROSO-DI-N-PROPYLAMINE | ND | 9.4 | 4.7 |
| N-NITROSODIPHENYLAMINE (2) | ND | 9.4 | 4.7 |
| NITROBENZENE | ND | 9.4 | 4.7 |
| PENTACHLOROPHENOL | ND | 19 | 9.4 |
| PHENANTHRENE | ND | 19 | 5.6 |
| PHENOL | ND | 9.4 | 4.7 |
| PYRENE | ND | 9.4 | 4.7 |
| 1,1'-BIPHENYL | ND | 9.4 | 4.7 |
| ACETOPHENONE | ND | 19 | 5.6 |
| ATRAZINE | ND | 9.4 | 4.7 |
| BENZALDEHYDE | ND | 9.4 | 4.7 |
| CAPROLACTAM | ND | 9.4 | 4.7 |
| CARBAZOLE | ND | 9.4 | 4.7 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| 2,4,6-TRIBROMOPHENOL | 68 | 25-134 |
| 2-FLUOROBIPHENYL | 74 | 43-125 |
| 2-FLUOROPHENOL | 68 | 25-125 |
| NITROBENZENE-D5 | 81 | 32-125 |
| PHENOL-D5 | 73 | 25-125 |
| TERPHENYL-D14 | 89 | 42-126 |

RL: Reporting Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

SW 3520C/8270C
 SEMI VOLATILE ORGANICS BY GC/MS

| | |
|------------------------------|--------------------------------|
| Client : TETRA TECH FW, INC. | Date Collected: 12/14/04 |
| Project : MFA SITE 1, CTO 86 | Date Received: 12/15/04 |
| Batch No. : 04L115 | Date Extracted: 12/20/04 16:00 |
| Sample ID: 86-S1-083 | Date Analyzed: 12/23/04 00:30 |
| Lab Samp ID: L115-12 | Dilution Factor: .94 |
| Lab File ID: RLH275 | Matrix : WATER |
| Ext Btch ID: SVL023W | % Moisture : NA |
| Calib. Ref.: RLH007 | Instrument ID : T-041 |

| PARAMETERS | RESULTS (ug/L) | RL (ug/L) | MDL (ug/L) |
|-----------------------------|-------------------|--------------|---------------|
| 2,4,5-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4,6-TRICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DICHLOROPHENOL | ND | 9.4 | 4.7 |
| 2,4-DIMETHYLPHENOL | ND | 9.4 | 4.7 |
| 2,4-DINITROPHENOL | ND | 19 | 9.4 |
| 2,4-DINITROTOLUENE | ND | 19 | 9.4 |
| 2,6-DINITROTOLUENE | ND | 19 | 5.6 |
| 2-CHLORONAPHTHALENE | ND | 9.4 | 4.7 |
| 2-CHLOROPHENOL | ND | 9.4 | 4.7 |
| 2-METHYLNAPHTHALENE | ND | 9.4 | 4.7 |
| 2-METHYLPHENOL | ND | 19 | 5.6 |
| 2-NITROANILINE | ND | 9.4 | 4.7 |
| 2-NITROPHENOL | ND | 9.4 | 4.7 |
| 3,3'-DICHLOROBENZIDINE | ND | 9.4 | 4.7 |
| 3-NITROANILINE | ND | 19 | 9.4 |
| 4,6-DINITRO-2-METHYLPHENOL | ND | 19 | 6.6 |
| 4-BROMOPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-CHLORO-3-METHYLPHENOL | ND | 9.4 | 4.7 |
| 4-CHLOROANILINE | ND | 9.4 | 4.7 |
| 4-CHLOROPHENYL-PHENYL ETHER | ND | 9.4 | 4.7 |
| 4-METHYLPHENOL (1) | ND | 9.4 | 4.7 |
| 4-NITROANILINE | ND | 19 | 4.7 |
| 4-NITROPHENOL | ND | 9.4 | 4.7 |
| ACENAPHTHENE | ND | 9.4 | 4.7 |
| ACENAPHTHYLENE | ND | 9.4 | 4.7 |
| ANTHRACENE | ND | 9.4 | 4.7 |
| 3-BENZO(A)ANTHRACENE | ND | 9.4 | 4.7 |
| 3-BENZO(A)PYRENE | ND | 9.4 | 4.7 |
| 3-BENZO(B)FLUORANTHENE | ND | 9.4 | 4.7 |
| 3-BENZO(K)FLUORANTHENE | ND | 9.4 | 4.7 |
| BENZO(G,H,I)PERYLENE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHOXY)METHANE | ND | 9.4 | 4.7 |
| BIS(2-CHLOROETHYL)ETHER | ND | 9.4 | 4.7 |
| BIS(2-CHLOROISOPROPYL)ETHER | ND | 19 | 9.4 |
| BIS(2-ETHYLHEXYL)PHTHALATE | ND | 9.4 | 4.7 |
| BUTYLBENZYLPHTHALATE | ND | 9.4 | 4.7 |
| CHRYSENE | ND | 9.4 | 4.7 |
| DI-N-BUTYLPHTHALATE | ND | 9.4 | 4.7 |
| DI-N-OCTYLPHTHALATE | ND | 9.4 | 4.7 |
| DIBENZO(A,H)ANTHRACENE | ND | 9.4 | 4.7 |
| DIBENZOFURAN | ND | 19 | 4.7 |
| DIETHYLPHTHALATE | ND | 19 | 5.6 |
| DIMETHYLPHTHALATE | ND | 9.4 | 4.7 |
| FLUORANTHENE | ND | 9.4 | 4.7 |
| FLUORENE | ND | 19 | 5.6 |
| HEXACHLOROBENZENE | ND | 9.4 | 4.7 |
| HEXACHLOROCYCLOPENTADIENE | ND | 9.4 | 4.7 |
| HEXACHLOROETHANE | ND | 9.4 | 4.7 |
| INDENO(1,2,3-CD)PYRENE | ND | 9.4 | 4.7 |
| ISOPHORONE | ND | 9.4 | 4.7 |
| N-NITROSO-DI-N-PROPYLAMINE | ND | 9.4 | 4.7 |
| N-NITROSDIPHENYLAMINE (2) | ND | 9.4 | 4.7 |
| NITROBENZENE | ND | 9.4 | 4.7 |
| PENTACHLOROPHENOL | ND | 19 | 9.4 |
| PHENANTHRENE | ND | 19 | 5.6 |
| PHENOL | ND | 9.4 | 4.7 |
| PYRENE | ND | 9.4 | 4.7 |
| 1,1'-BIPHENYL | ND | 9.4 | 4.7 |
| ACETOPHENONE | ND | 9.4 | 2.3 |
| ATRAZINE | ND | 19 | 9.4 |
| BENZALDEHYDE | ND | 9.4 | 4.7 |
| CAPROLACTAM | ND | 9.4 | 4.7 |
| CARBAZOLE | ND | 9.4 | 4.7 |

| SURROGATE PARAMETERS | % RECOVERY | QC LIMIT |
|----------------------|------------|----------|
| 2,4,6-TRIBROMOPHENOL | 68 | 25-134 |
| 2-FLUOROBIPHENYL | 77 | 43-125 |
| 2-FLUOROPHENOL | 69 | 25-125 |
| NITROBENZENE-D5 | 82 | 32-125 |
| PHENOL-D5 | 70 | 25-125 |
| TERPHENYL-D14 | 112 | 42-126 |

RL: Reporting Limit
 (1): Cannot be separated from 3-Methylphenol
 (2): Cannot be separated from Diphenylamine

CASE NARRATIVE

CLIENT: TETRA TECH FW, INC.
PROJECT: MFA, SITE 1, CTO 86
SDG: 04L115

METHOD 7470A
DISSOLVED MERCURY BY COLD VAPOR

Twelve (12) water samples were received on 12/15/04 for Dissolved Mercury analysis by Method 7470A in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW846, 3rd edition.

1. Holding Time
Analysis met holding time criteria.
2. Method Blank
Method blank was free of contamination at the reporting limit.
3. Lab Control Sample/Lab Control Sample Duplicate
Lab control results were within QC limit.
4. Serial Dilution / Post-Analytical Spike
Sample L115-02 was analyzed for serial dilution and post-analytical spike. All QC requirements were met.
5. Matrix Spike/Matrix Spike Duplicate
Sample L115-02 was spiked. Recoveries were within QC limit.
6. Sample Analysis
Samples were analyzed according to the prescribed QC procedures. All criteria were met.

Samples were reported from dilution runs due to matrix interference.

METHOD 7470A
DISSOLVED MERCURY BY COLD VAPOR

Client : TETRA TECH FW, INC.
Project : MFA, SITE 1, CTO 86
Batch No. : 04L115

Matrix : WATER
Instrument ID : T1047

| SAMPLE ID | EMAX SAMPLE ID | RESULTS (ug/L) | DLF | MOIST | RL (ug/L) | MDL (ug/L) | Analysis DATE/TIME | Extraction DATE/TIME | LFID | CAL REF | PREP BATCH | Collection DATE/TIME | Received DATE/TIME |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-------------------|-----|-------|--------------|---------------|-----------------------|-------------------------|------------|------------|------------|-------------------------|-----------------------|
| HGLK1W LCS1W LCD1W 86-S1-072AS 86-S1-072 86-S1-072DL 86-S1-072HS 86-S1-072MSD 86-S1-071 86-S1-073 86-S1-075 86-S1-076 86-S1-077 86-S1-078 86-S1-079 86-S1-080 86-S1-081 86-S1-082 86-S1-083 | HGL0304B | ND | 1 | NA | 2 | 1 | 12/29/0415:41 | 12/29/0412:30 | M47L030011 | M47L030009 | HGL030W | NA | 12/29/04 |
| | HGL0304L | 4.98 | 1 | NA | 2 | 1 | 12/29/0415:43 | 12/29/0412:30 | M47L030012 | M47L030009 | HGL030W | NA | 12/29/04 |
| | HGL0304C | 4.97 | 1 | NA | 2 | 1 | 12/29/0415:45 | 12/29/0412:30 | M47L030013 | M47L030009 | HGL030W | NA | 12/29/04 |
| | L115-02A | 40 | 20 | NA | 4 | 2 | 12/29/0416:59 | 12/29/0412:30 | M47L030045 | M47L030043 | HGL030W | 12/13/04 | 12/15/04 |
| | L115-02 | ND | 20 | NA | 4 | 2 | 12/29/0417:01 | 12/29/0412:30 | M47L030046 | M47L030043 | HGL030W | 12/13/04 | 12/15/04 |
| | L115-02T | ND | 100 | NA | 20 | 10 | 12/29/0417:03 | 12/29/0412:30 | M47L030047 | M47L030043 | HGL030W | 12/13/04 | 12/15/04 |
| | L115-02M | 5.6 | 20 | NA | 4 | 2 | 12/29/0417:06 | 12/29/0412:30 | M47L030048 | M47L030043 | HGL030W | 12/13/04 | 12/15/04 |
| | L115-02S | 5.38 | 20 | NA | 4 | 2 | 12/29/0417:08 | 12/29/0412:30 | M47L030049 | M47L030043 | HGL030W | 12/13/04 | 12/15/04 |
| | L115-01 | ND | 20 | NA | 4 | 2 | 12/29/0417:10 | 12/29/0412:30 | M47L030050 | M47L030043 | HGL030W | 12/13/04 | 12/15/04 |
| | L115-03 | ND | 20 | NA | 4 | 2 | 12/29/0417:12 | 12/29/0412:30 | M47L030051 | M47L030043 | HGL030W | 12/13/04 | 12/15/04 |
| | L115-04 | ND | 20 | NA | 4 | 2 | 12/29/0417:14 | 12/29/0412:30 | M47L030052 | M47L030043 | HGL030W | 12/13/04 | 12/15/04 |
| | L115-05 | ND | 20 | NA | 4 | 2 | 12/29/0417:16 | 12/29/0412:30 | M47L030053 | M47L030043 | HGL030W | 12/13/04 | 12/15/04 |
| L115-06 | ND | 20 | NA | 4 | 2 | 12/29/0417:19 | 12/29/0412:30 | M47L030054 | M47L030043 | HGL030W | 12/13/04 | 12/15/04 | |
| L115-07 | ND | 20 | NA | 4 | 2 | 12/29/0417:25 | 12/29/0412:30 | M47L030057 | M47L030055 | HGL030W | 12/14/04 | 12/15/04 | |
| L115-08 | ND | 20 | NA | 4 | 2 | 12/29/0417:28 | 12/29/0412:30 | M47L030058 | M47L030055 | HGL030W | 12/14/04 | 12/15/04 | |
| L115-09 | ND | 20 | NA | 4 | 2 | 12/29/0417:30 | 12/29/0412:30 | M47L030059 | M47L030055 | HGL030W | 12/14/04 | 12/15/04 | |
| L115-10 | ND | 20 | NA | 4 | 2 | 12/29/0417:32 | 12/29/0412:30 | M47L030060 | M47L030055 | HGL030W | 12/14/04 | 12/15/04 | |
| L115-11 | ND | 20 | NA | 4 | 2 | 12/29/0417:34 | 12/29/0412:30 | M47L030061 | M47L030055 | HGL030W | 12/14/04 | 12/15/04 | |
| L115-12 | ND | 20 | NA | 4 | 2 | 12/29/0417:36 | 12/29/0412:30 | M47L030062 | M47L030055 | HGL030W | 12/14/04 | 12/15/04 | |

RL: Reporting Limit

7003

COPY

LDC Report# 13002A2

Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name: Moffett Airfield, Site 1, CTO 86
Collection Date: December 13 through December 14, 2004
LDC Report Date: January 14, 2005
Matrix: Water
Parameters: Semivolatiles
Validation Level: EPA Level III & IV
Laboratory: EMAX Laboratories, Inc.
Sample Delivery Group (SDG): 04L115

Sample Identification

86-S1-071**
86-S1-072
86-S1-073
86-S1-075
86-S1-076
86-S1-077**
86-S1-078
86-S1-079
86-S1-080**
86-S1-081
86-S1-082
86-S1-083
86-S1-072MS
86-S1-072MSD

**Indicates sample underwent EPA Level IV review

✓
JB
3/2/05

Introduction

This data review covers 14 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8270C for Semivolatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XVI.

Samples indicated by a double asterisk on the front cover underwent a EPA Level IV review. A EPA Level III review was performed on all of the other samples. Raw data were not evaluated for the samples reviewed by Level III criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UU Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

The mean percent relative standard deviation (%RSD) for all compounds was less than or equal to 15.0% and less than or equal to 30.0% for selected individual compounds.

A curve fit, based on the initial calibration, was established for quantitation. The coefficient of determination (r^2) was greater than or equal to 0.990 .

Average relative response factors (RRF) for all system performance check compounds (SPCCs) were within method criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

For the purposes of technical evaluation, all compounds were evaluated against the 25.0% (%D) National Functional Guideline criteria. Unless noted above, all compounds were within the validation criteria with the following exceptions:

| Date | Compound | %D | Associated Samples | Flag | A or P |
|----------|----------------------------|------|---------------------------|-----------------------------------------|--------|
| 12/22/04 | 4,6-Dinitro-2-methylphenol | 29.7 | All samples in SDG 04L115 | J (all detects) UJ (all non-detects) | A |

Initial calibration verification (ICV) percent differences (%D) were less than or equal to 20.0% for all compounds with the following exceptions:

| Date | Compound | %D | Associated Samples | Flag | A or P |
|---------|--------------|------|---------------------------|-----------------------------------------|--------|
| 12/2/04 | Benzaldehyde | 23.8 | All samples in SDG 04L115 | J (all detects) UJ (all non-detects) | A |

All of the continuing calibration RRF values for all system performance check compounds (SPCCs) were within method criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No semivolatile contaminants were found in the method blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XII. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria for samples on

which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XV. Overall Assessment

Data flags have been summarized at the end of the report.

XVI. Field Duplicates

Samples 86-S1-076 and 86-S1-077** and samples 86-S1-079 and 86-S1-080** were identified as field duplicates. No semivolatiles were detected in any of the samples.

XVII. Field Blanks

No field blanks were identified in this SDG.

Moffett Airfield, Site 1, CTO 86
Semivolatiles - Data Qualification Summary - SDG 04L115

| SDG | Sample | Compound | Flag | A or P | Reason |
|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|-----------------------------------------|--------|------------------------------------|
| 04L115 | 86-S1-071** 86-S1-072 86-S1-073 86-S1-075 86-S1-076 86-S1-077** 86-S1-078 86-S1-079 86-S1-080** 86-S1-081 86-S1-082 86-S1-083 | 4,6-Dinitro-2-methylphenol | J (all detects) UJ (all non-detects) | A | Continuing calibration (CCV %D) |
| 04L115 | 86-S1-071** 86-S1-072 86-S1-073 86-S1-075 86-S1-076 86-S1-077** 86-S1-078 86-S1-079 86-S1-080** 86-S1-081 86-S1-082 86-S1-083 | Benzaldehyde | J (all detects) UJ (all non-detects) | A | Continuing calibration (ICV %D) |

Moffett Airfield, Site 1, CTO 86
Semivolatiles - Laboratory Blank Data Qualification Summary - SDG 04L115

No Sample Data Qualified in this SDG

COPY

LDC Report# 13002A4

Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name: Moffett Airfield, Site 1, CTO 86
Collection Date: December 13 through December 14, 2004
LDC Report Date: January 14, 2005
Matrix: Water
Parameters: Mercury
Validation Level: EPA Level III & IV
Laboratory: EMAX Laboratories, Inc.
Sample Delivery Group (SDG): 04L115

Sample Identification

86-S1-071**
86-S1-072
86-S1-073
86-S1-075
86-S1-076
86-S1-077**
86-S1-078
86-S1-079
86-S1-080**
86-S1-081
86-S1-082
86-S1-083
86-S1-072MS
86-S1-072MSD

**Indicates sample underwent EPA Level IV review

Introduction

This data review covers 14 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 7470A for Dissolved Mercury.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (February 1994) as there are no current guidelines for the method stated above.

A table summarizing all data qualification flags is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from specified protocols or is of technical advisory nature.

Blanks are summarized in Section III.

Field duplicates are summarized in Section XIII.

Samples indicated by a double asterisk on the front cover underwent a EPA Level IV review. A EPA Level III review was performed on all of the other samples. Raw data were not evaluated for the samples reviewed by Level III criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

An initial calibration was performed.

The frequency and analysis criteria of the initial calibration verification (ICV) and continuing calibration verification (CCV) were met.

III. Blanks

Method blanks were reviewed for each matrix as applicable.

Data qualification by the initial, continuing and preparation blanks (ICB/CCB/PBs) was based on the maximum contaminant concentration in the ICB/CCB/PBs in the analysis of each analyte. No contaminant concentrations were found in the initial, continuing and preparation blanks.

IV. ICP Interference Check Sample (ICS) Analysis

ICP interference check sample was not required by the method.

V. Matrix Spike Analysis

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VI. Duplicate Sample Analysis

The laboratory has indicated that there were no duplicate (DUP) analyses specified for the samples in this SDG, and therefore duplicate analyses were not performed for this SDG.

VII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Internal Standards

ICP-MS was not utilized in this SDG.

IX. Furnace Atomic Absorption QC

Graphite furnace atomic absorption was not utilized in this SDG.

X. ICP Serial Dilution

ICP serial dilution was not required by the method.

XI. Sample Result Verification

All sample result verifications met validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XII. Overall Assessment of Data

Data flags have been summarized at the end of this report.

XIII. Field Duplicates

Samples 86-S1-076 and 86-S1-077** and samples 86-S1-079 and 86-S1-080** were identified as field duplicates. No mercury was detected in any of the samples.

XIV. Field Blanks

No field blanks were identified in this SDG.

Moffett Airfield, Site 1, CTO 86
Mercury - Data Qualification Summary - SDG 04L115

No Sample Data Qualified in this SDG

Moffett Airfield, Site 1, CTO 86
Mercury - Laboratory Blank Data Qualification Summary - SDG 04L115

No Sample Data Qualified in this SDG

APPENDIX D

GROUNDWATER HYDROGRAPHS

FIGURE D-1

GROUNDWATER HYDROGRAPHS, WELLS W1-1 AND W1-1R

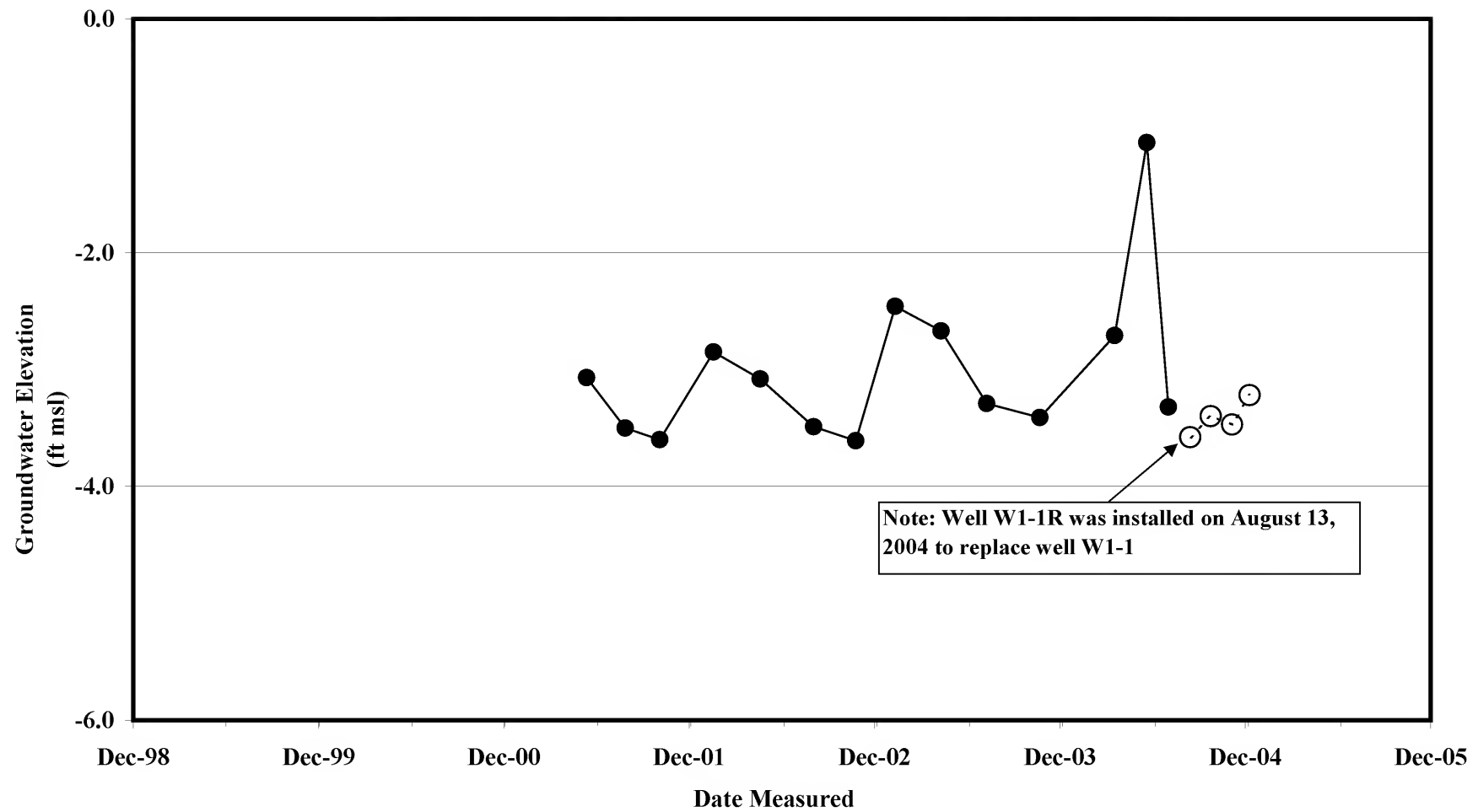


FIGURE D-2
GROUNDWATER HYDROGRAPH, WELL W1-5

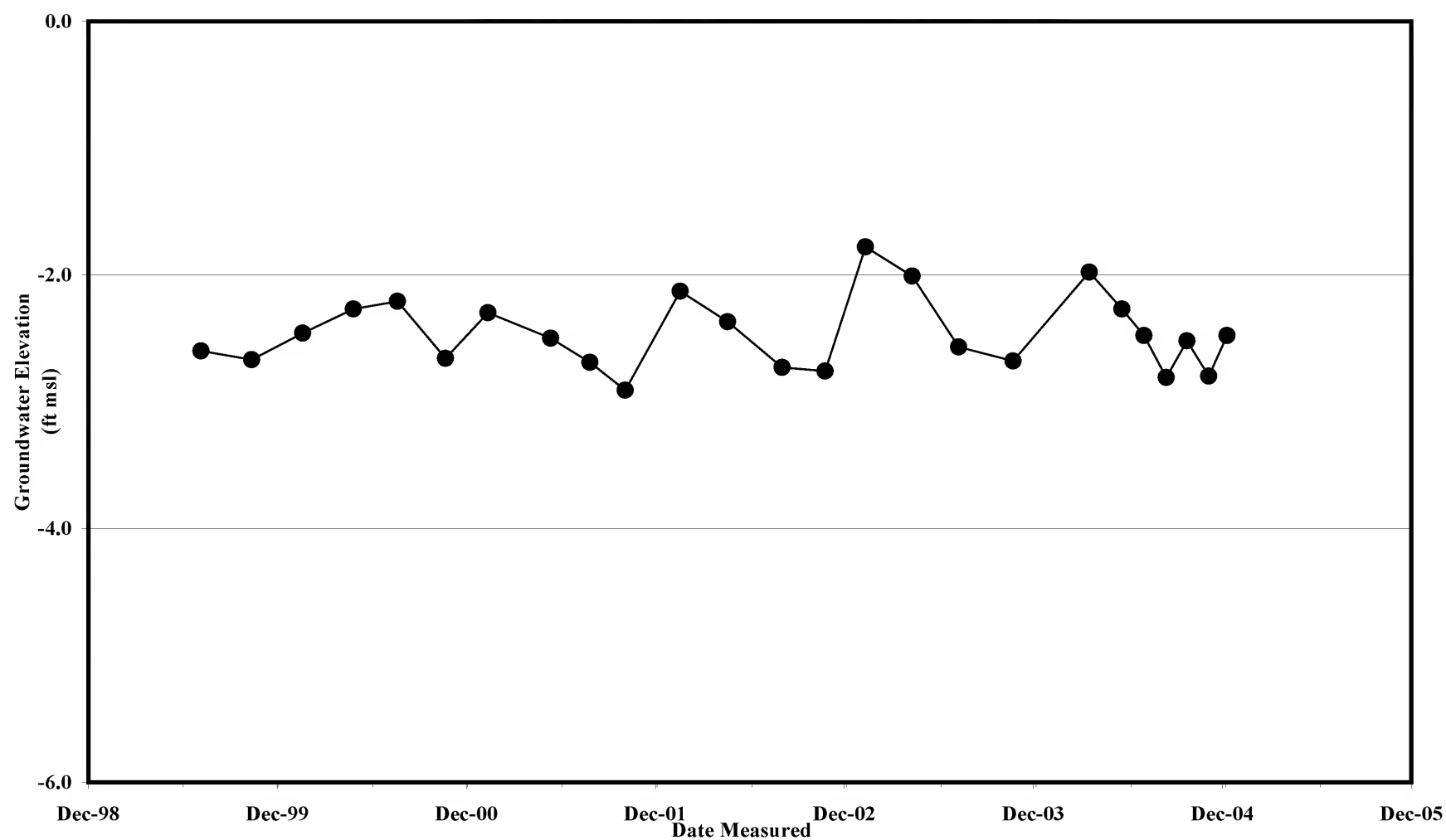


FIGURE D-3

GROUNDWATER HYDROGRAPH, WELL W1-6

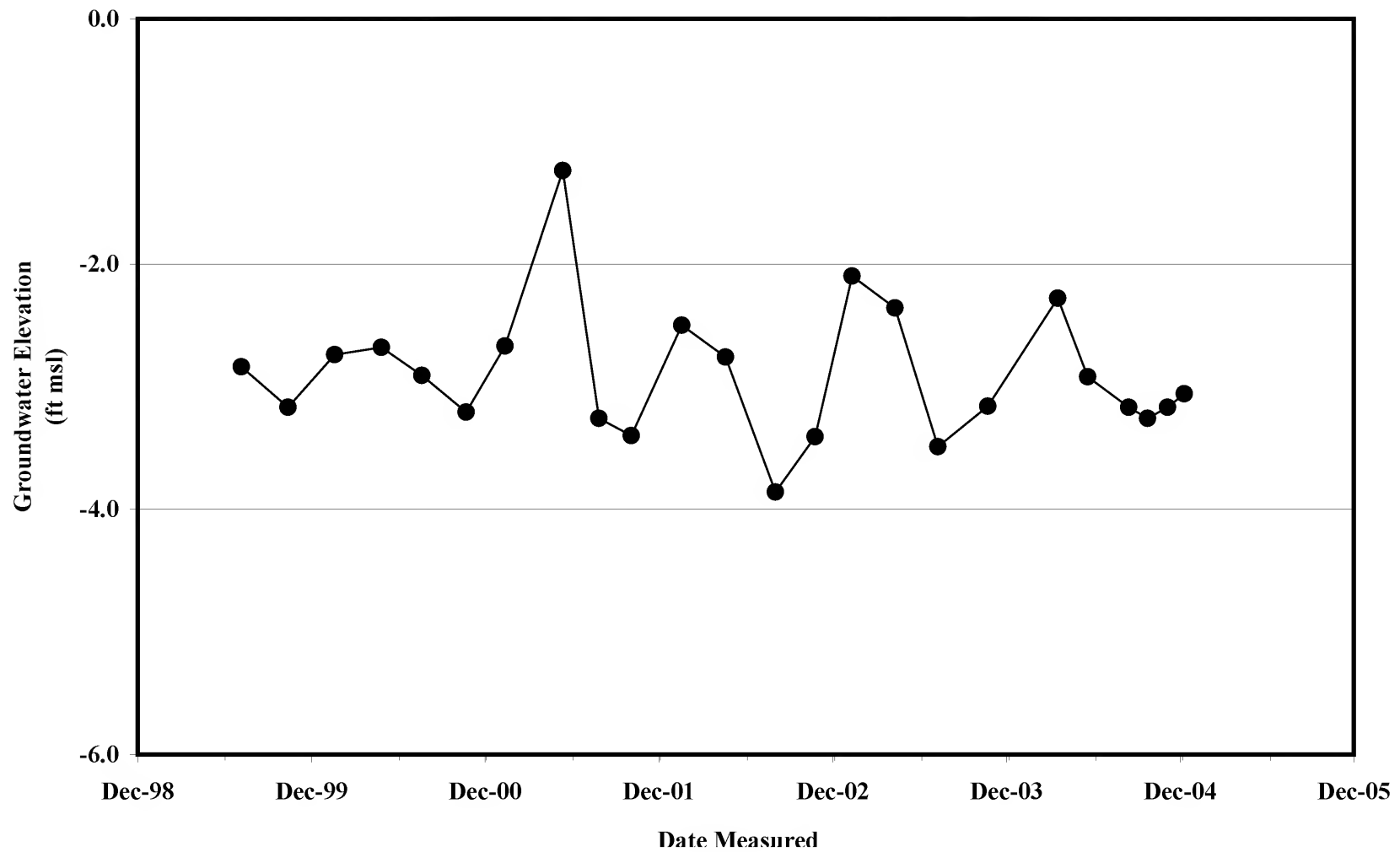


FIGURE D-4

GROUNDWATER HYDROGRAPH, WELL W1-7

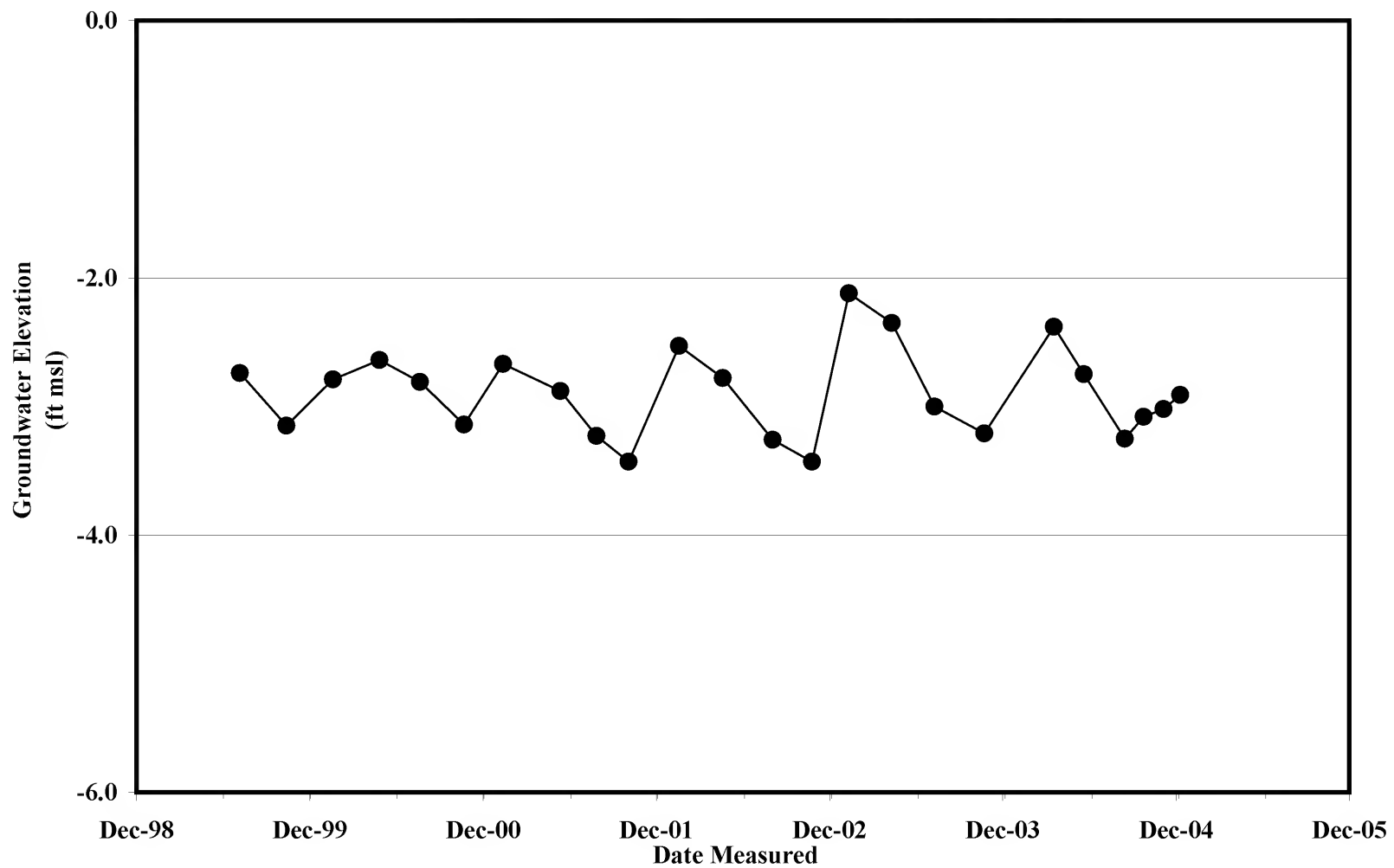


FIGURE D-5
GROUNDWATER HYDROGRAPH, WELL W1-8

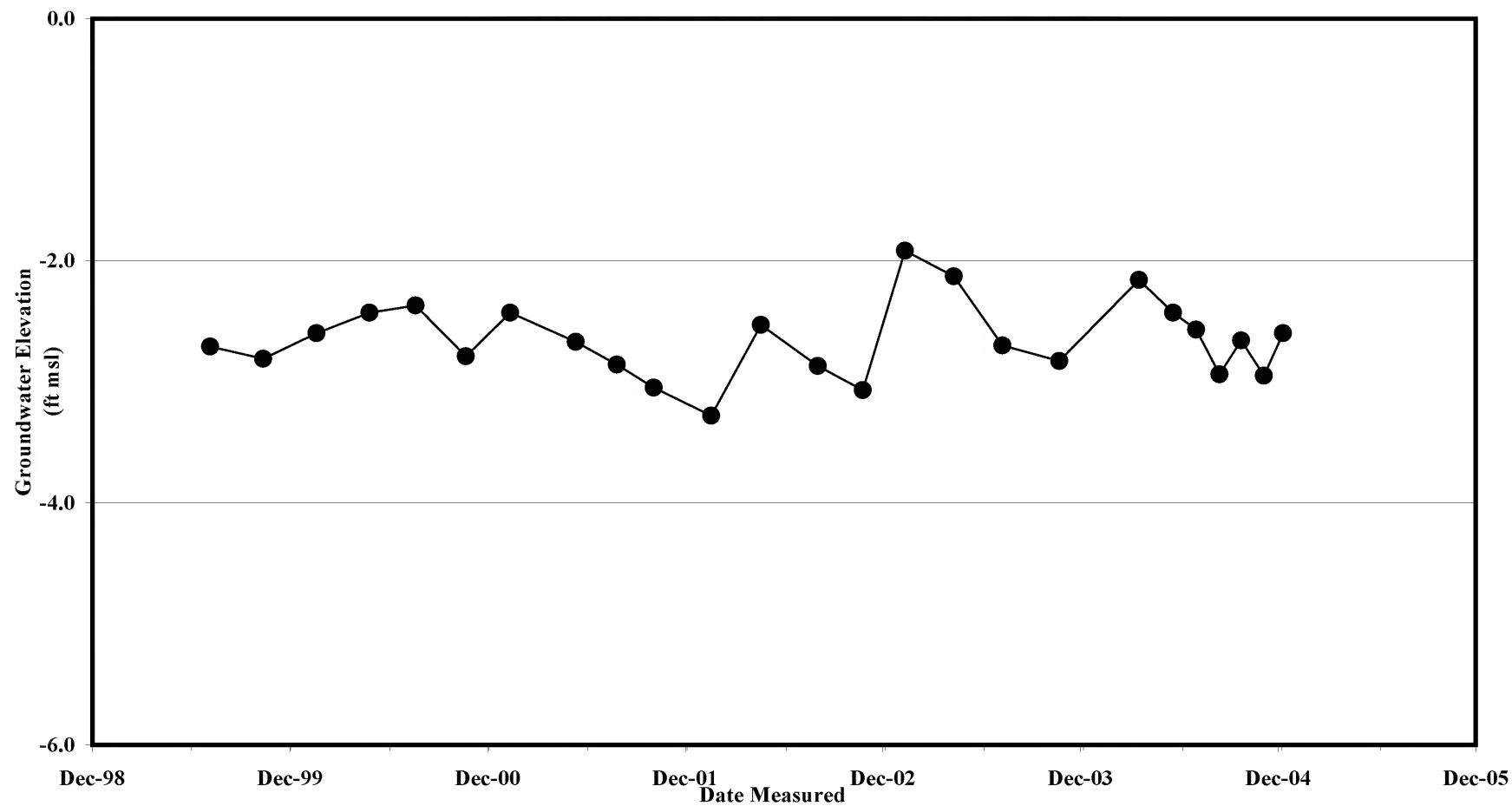


FIGURE D-6

GROUNDWATER HYDROGRAPHS, WELLS W1-12 AND W1-12R

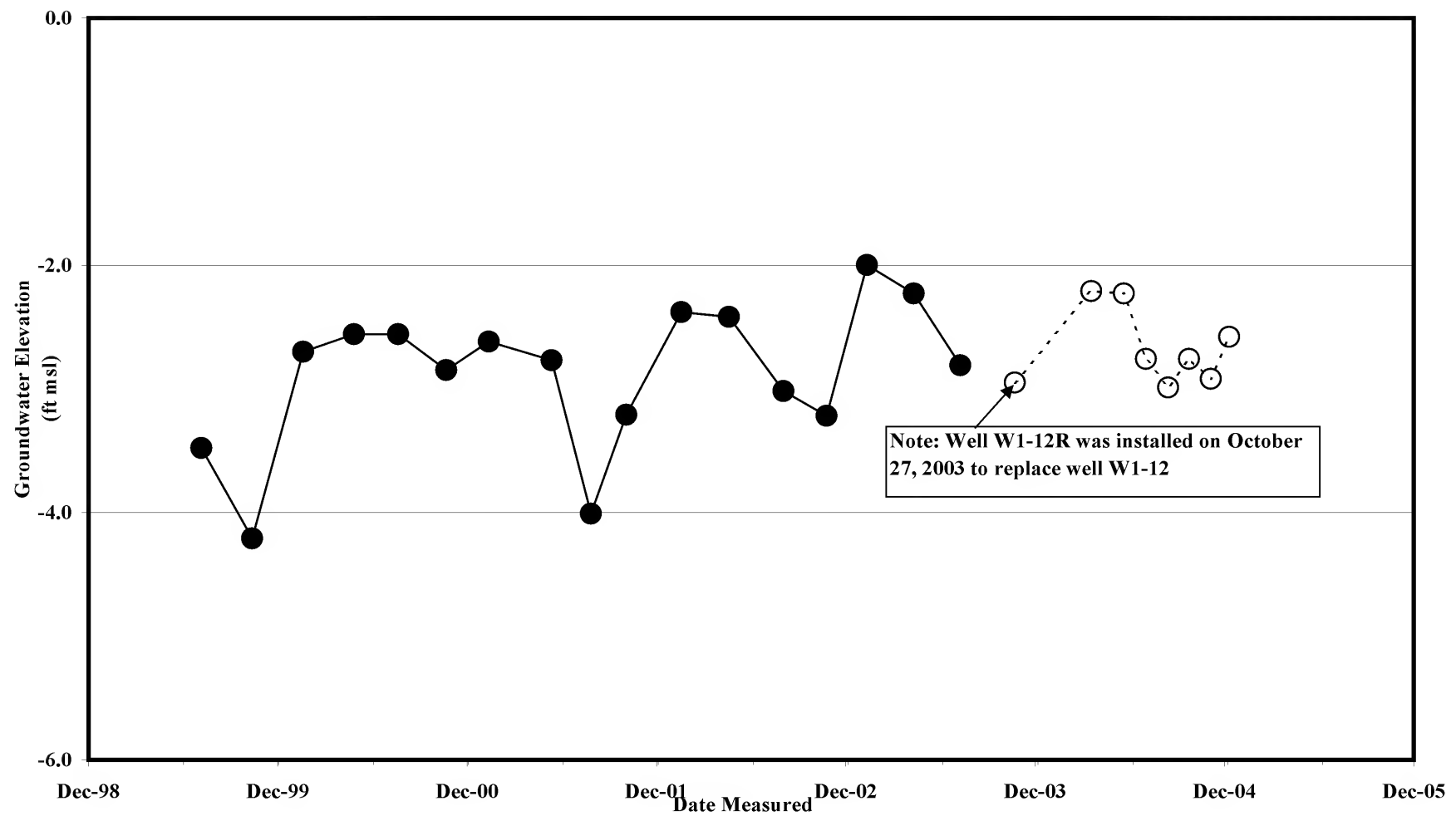


FIGURE D-7
GROUNDWATER HYDROGRAPH, WELL W1-14

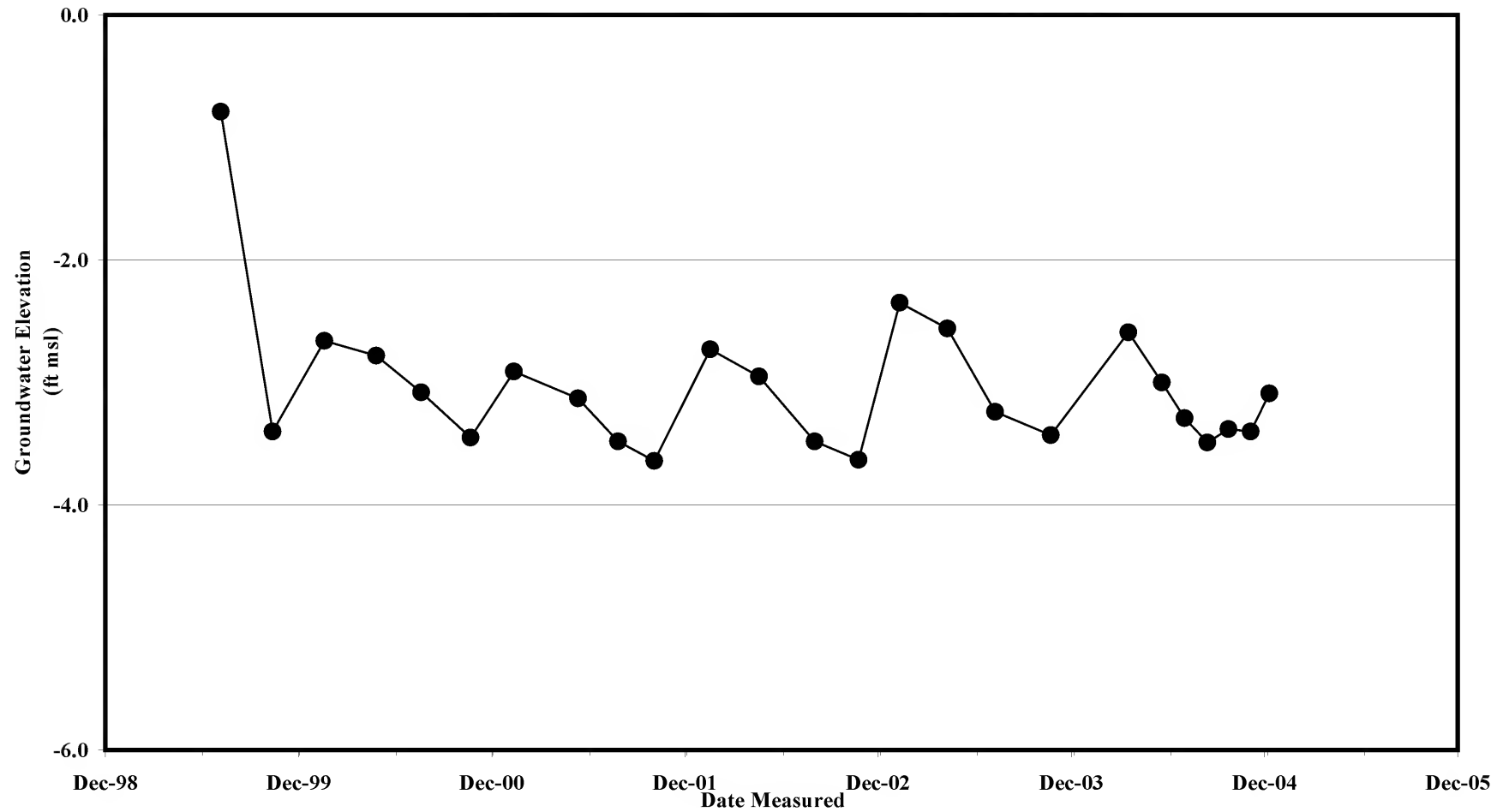


FIGURE D-8
GROUNDWATER HYDROGRAPH, WELL W1-15

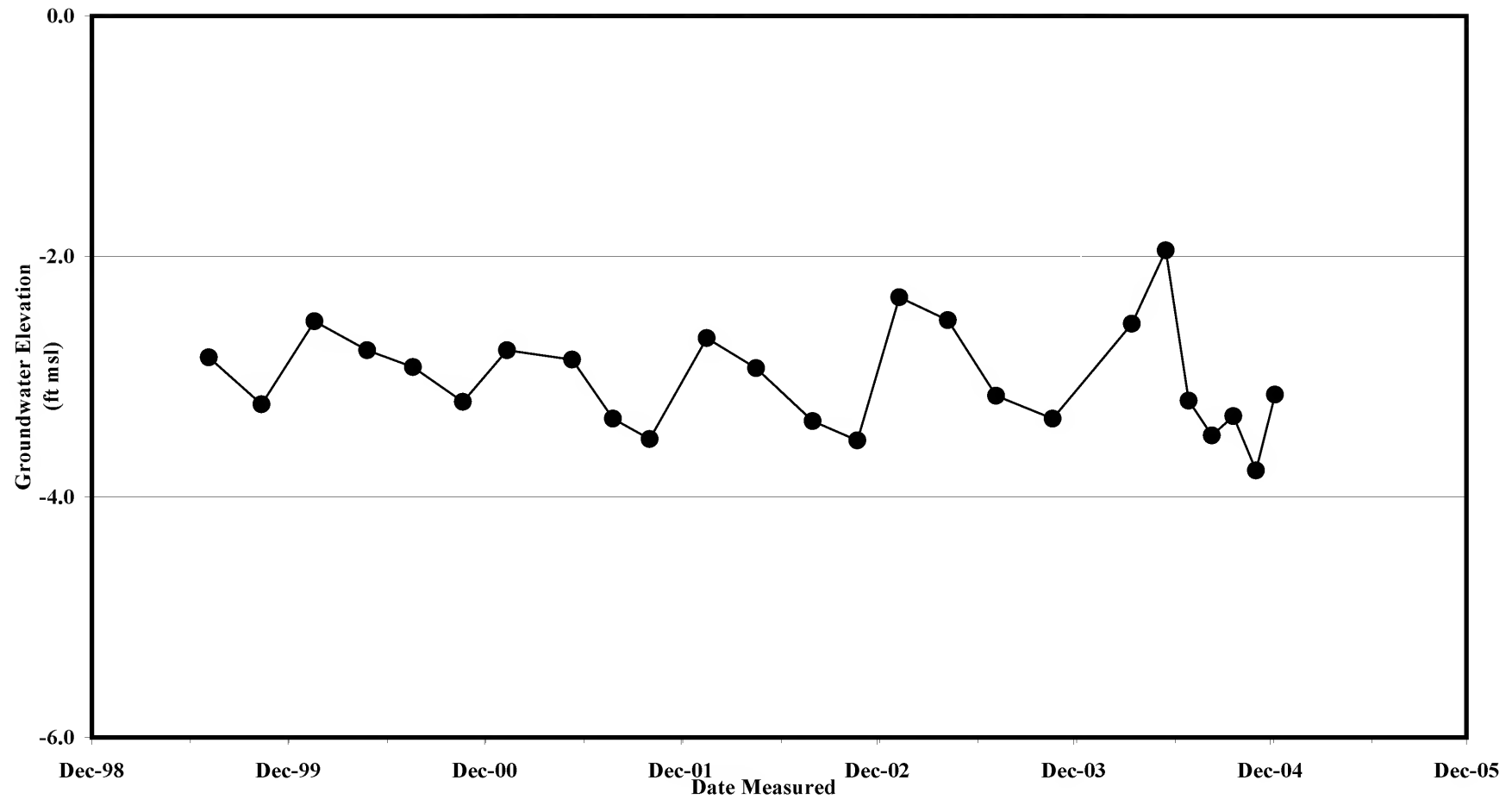


FIGURE D-9
GROUNDWATER HYDROGRAPH, WELL W1-16

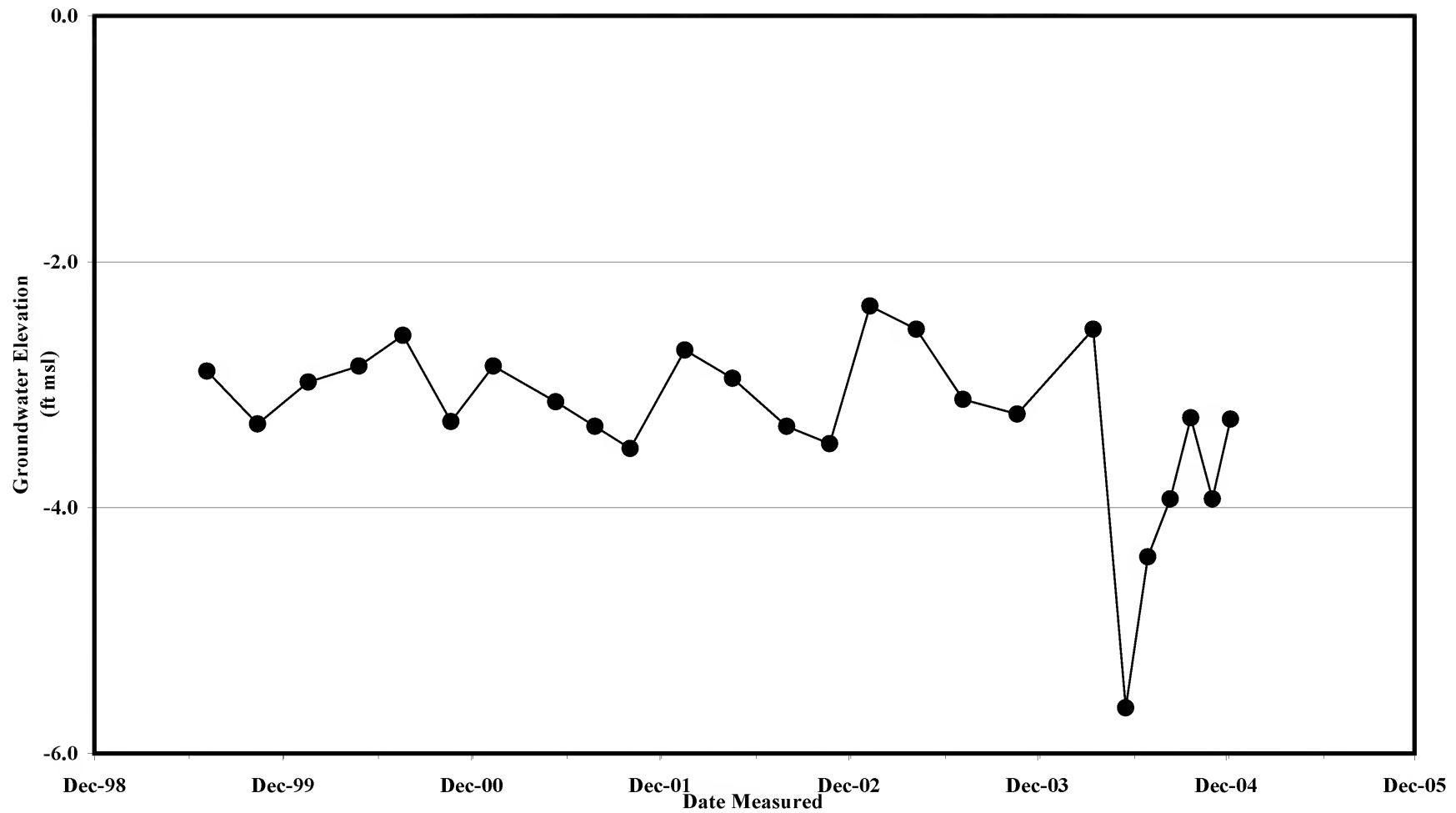


FIGURE D-10
GROUNDWATER HYDROGRAPH, WELL W1-19

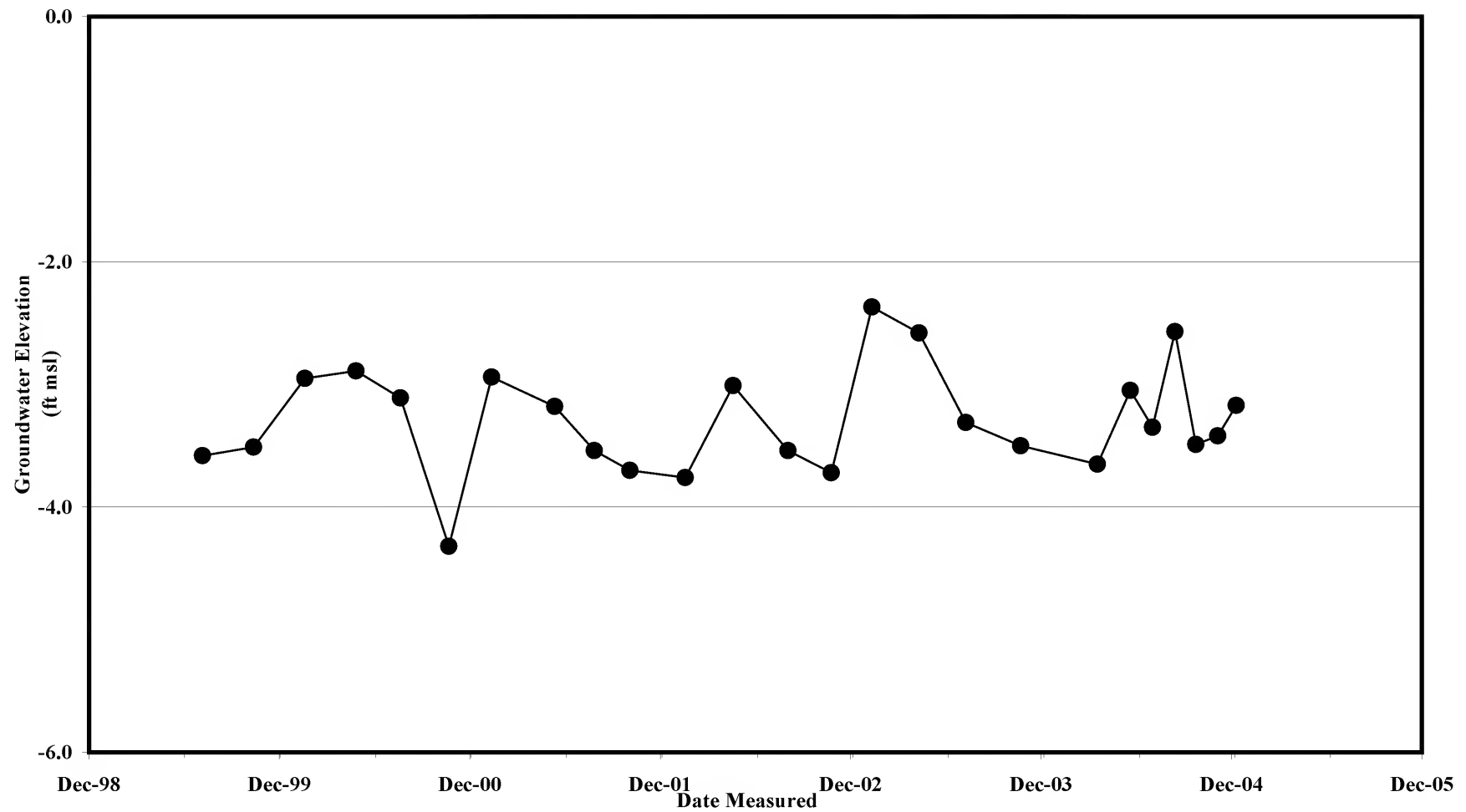


FIGURE D-11

GROUNDWATER HYDROGRAPH, WELL W1-20

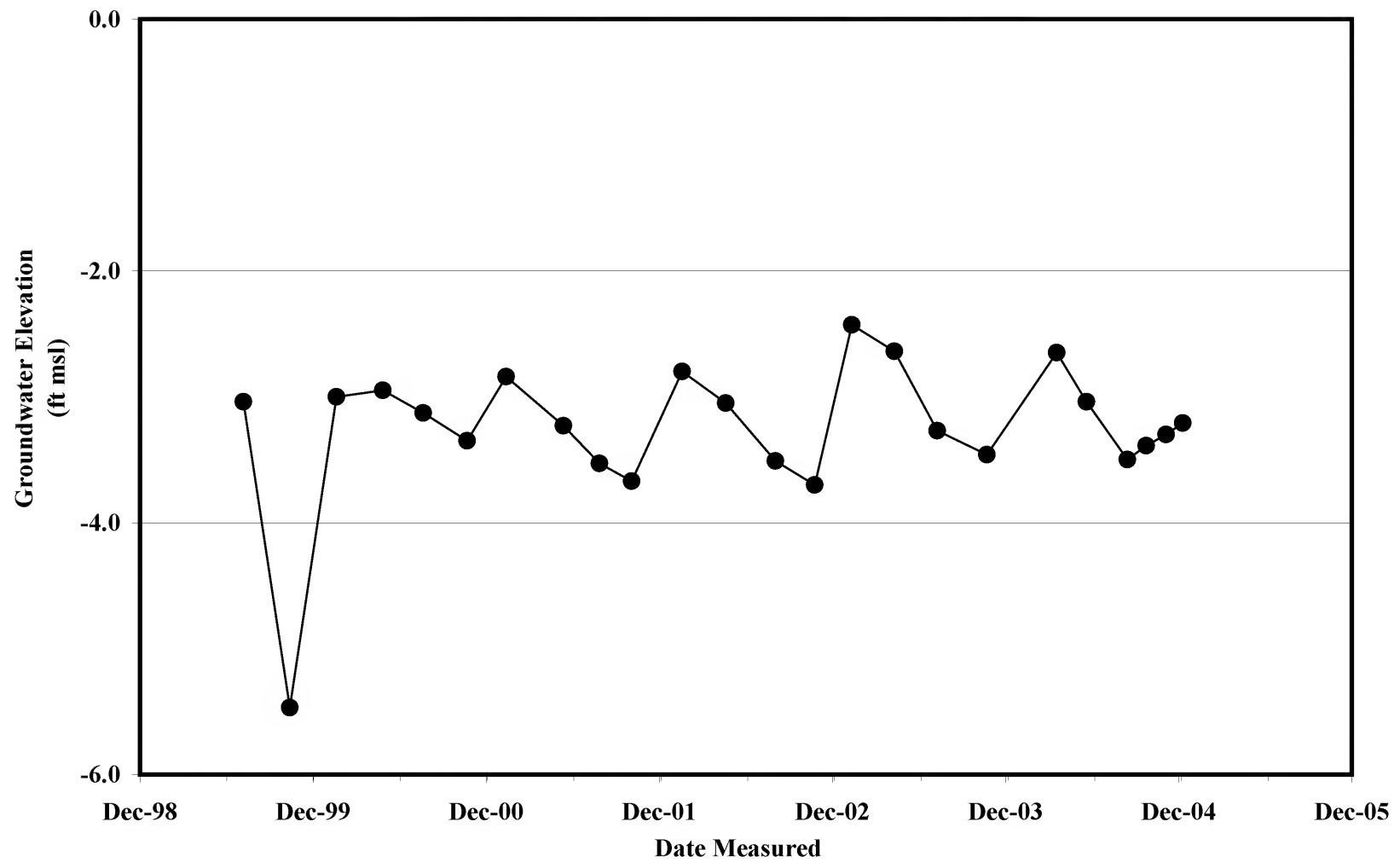


FIGURE D-12

GROUNDWATER HYDROGRAPH, WELL W1-22

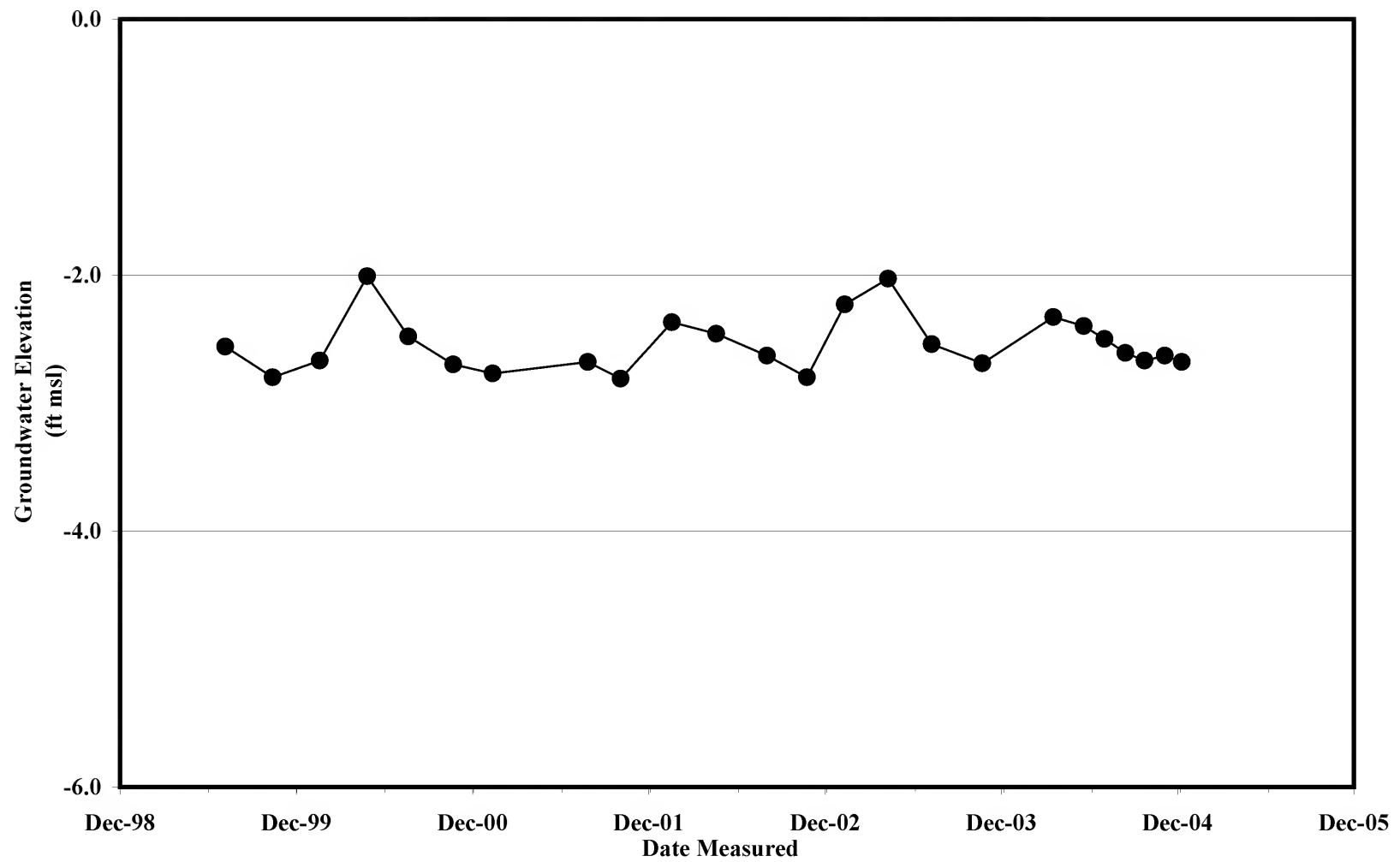
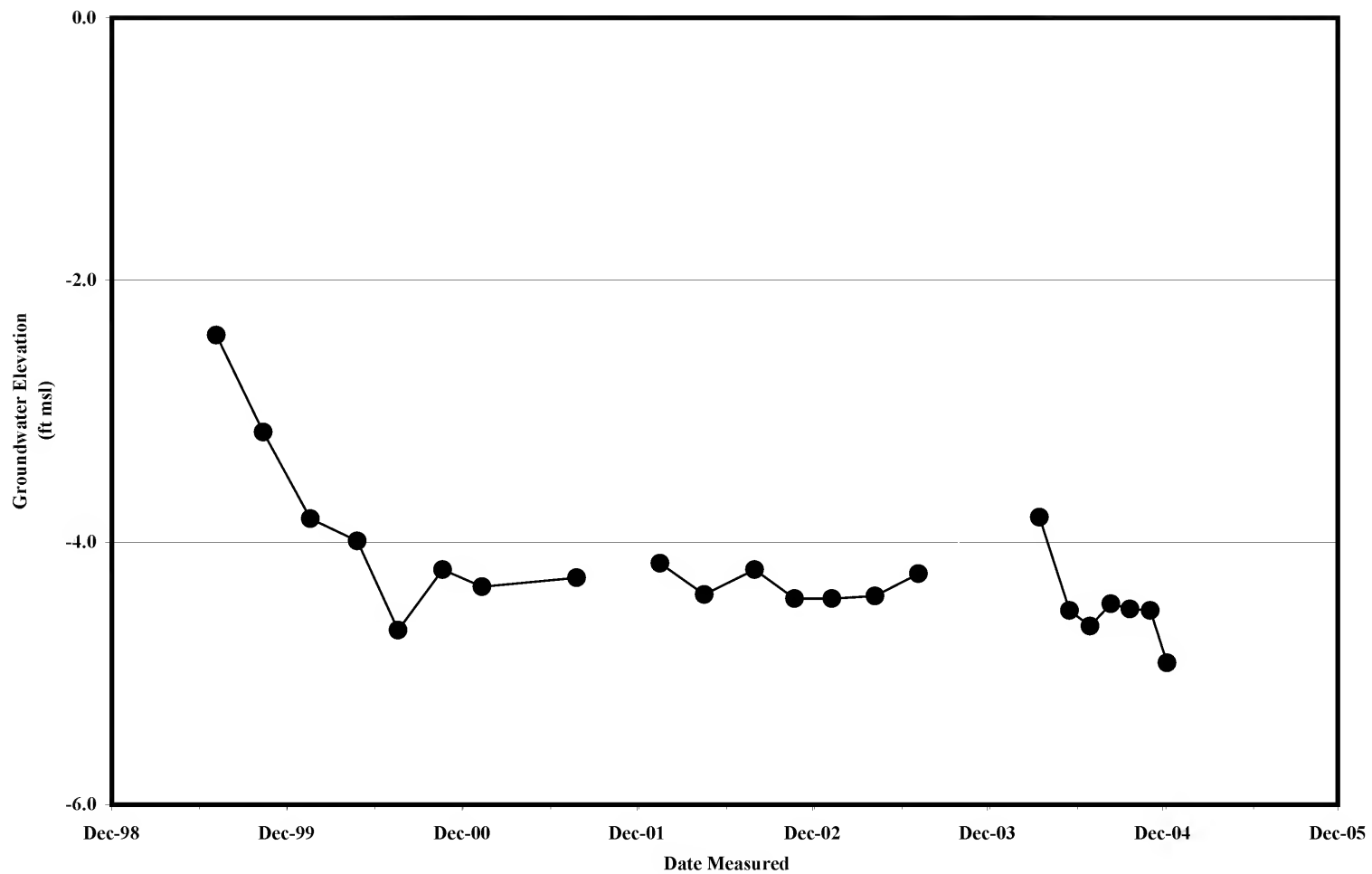


FIGURE D-13
GROUNDWATER HYDROGRAPH, WELL W1-23



Notes:

1. Breaks in hydrograph line indicate that the collection trench was dry during the respective time period.

FIGURE D-14
GROUNDWATER HYDROGRAPH, WELL W1-24

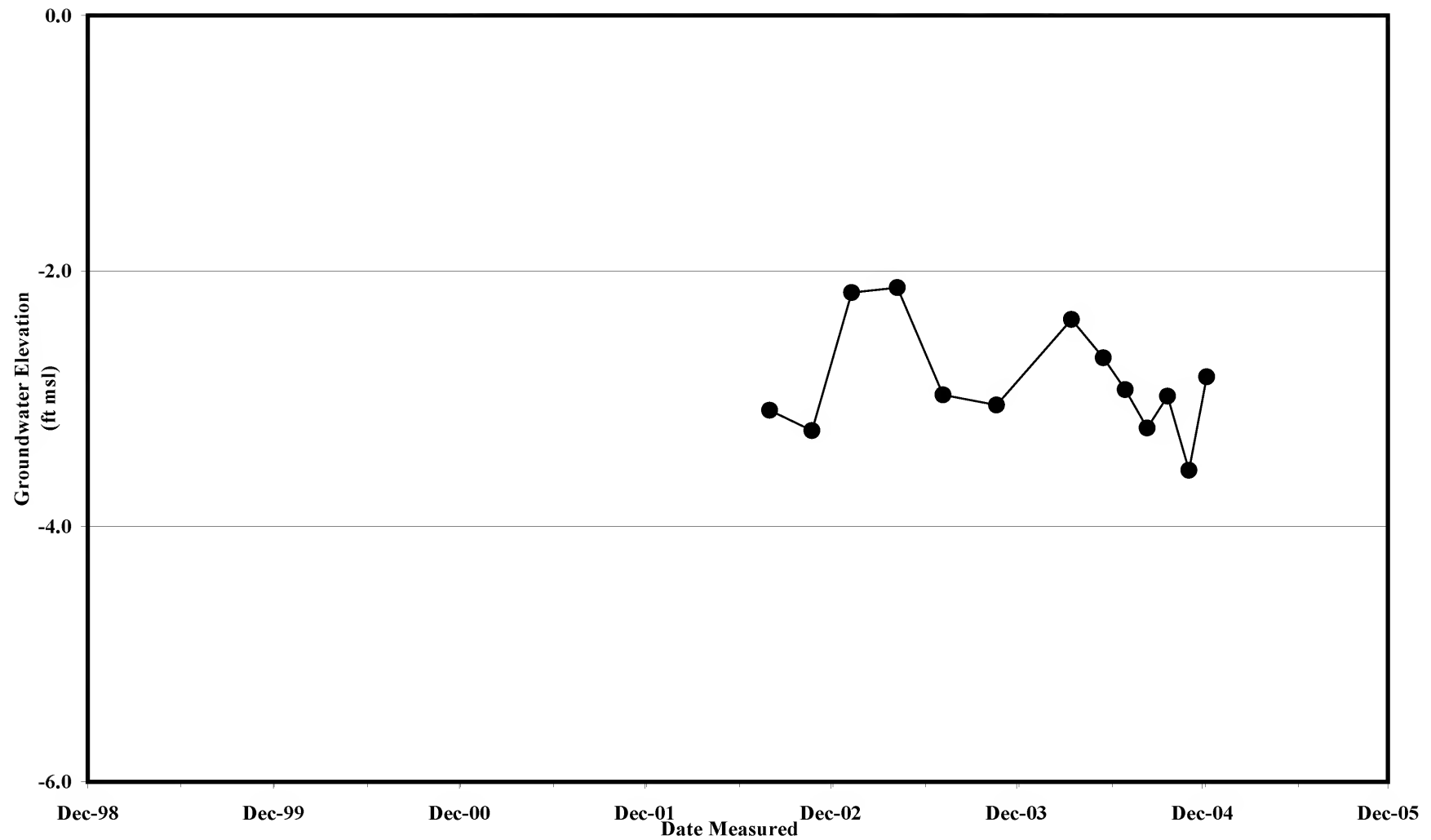


FIGURE D-15

GROUNDWATER HYDROGRAPH, PIEZOMETER PZ1-18

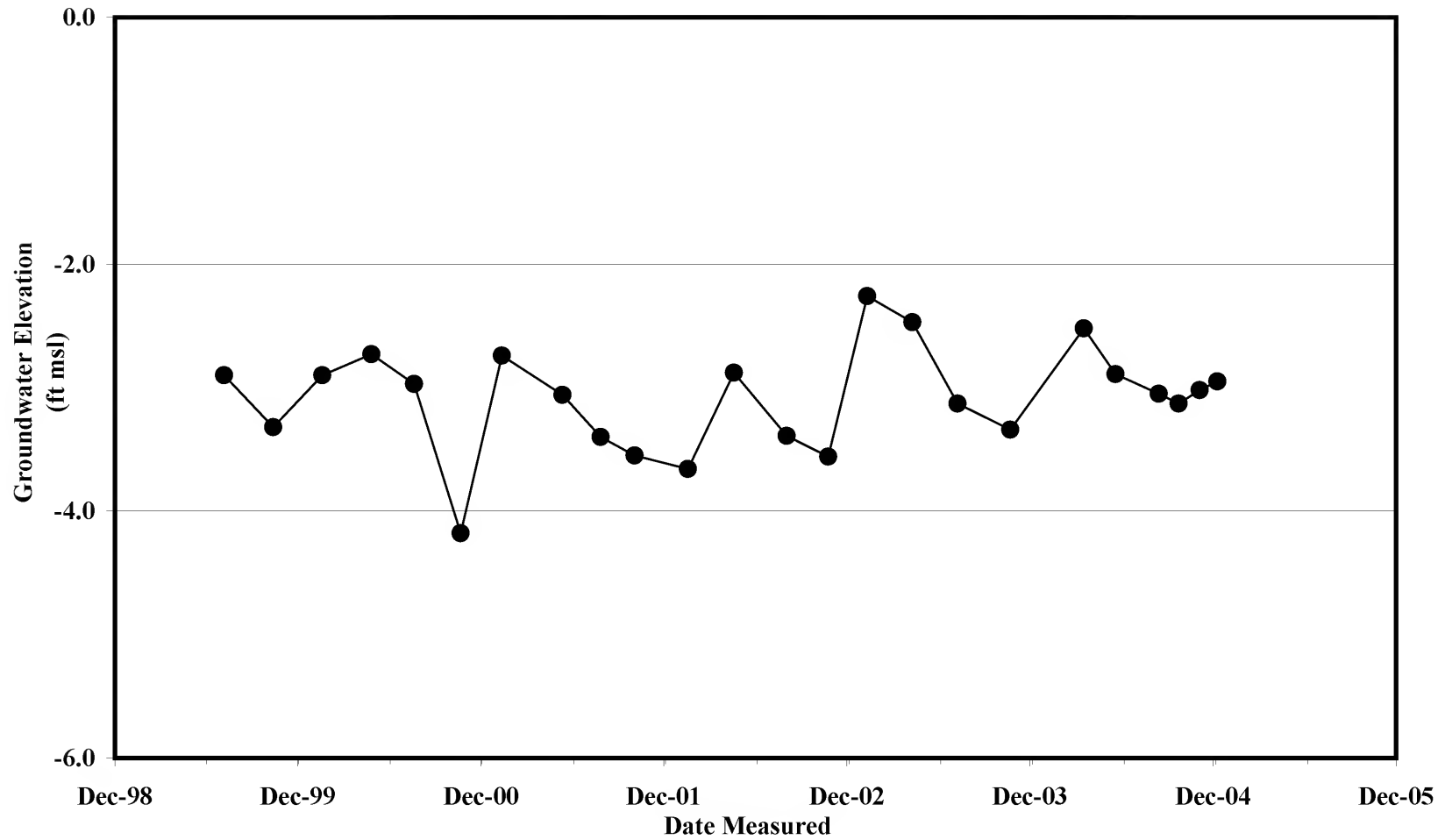


FIGURE D-16

GROUNDWATER HYDROGRAPH, WELL PZ1-21

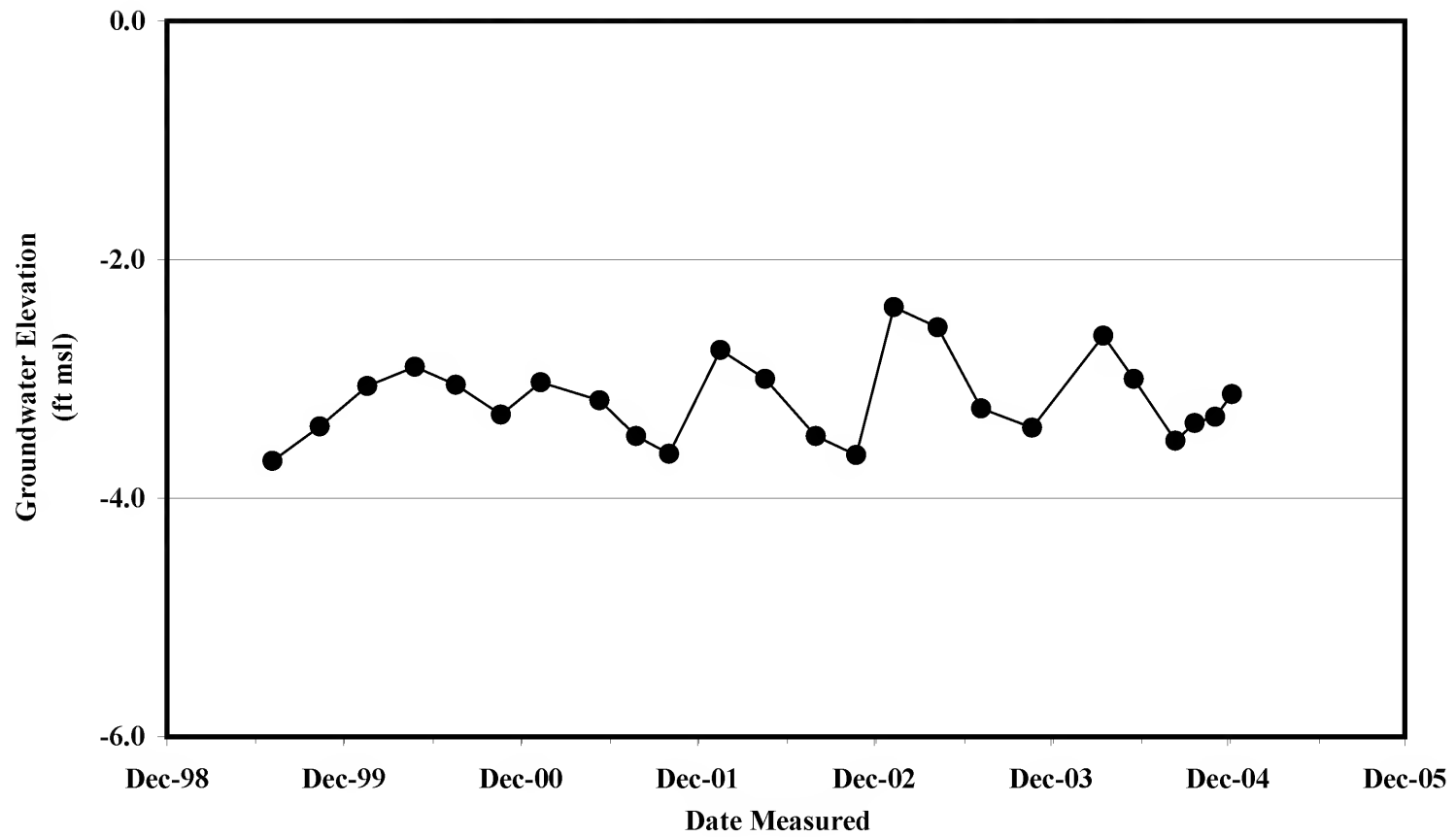


FIGURE D-17

GROUNDWATER HYDROGRAPHS, PIEZOMETER PZ1-18 AND WELL W1-19

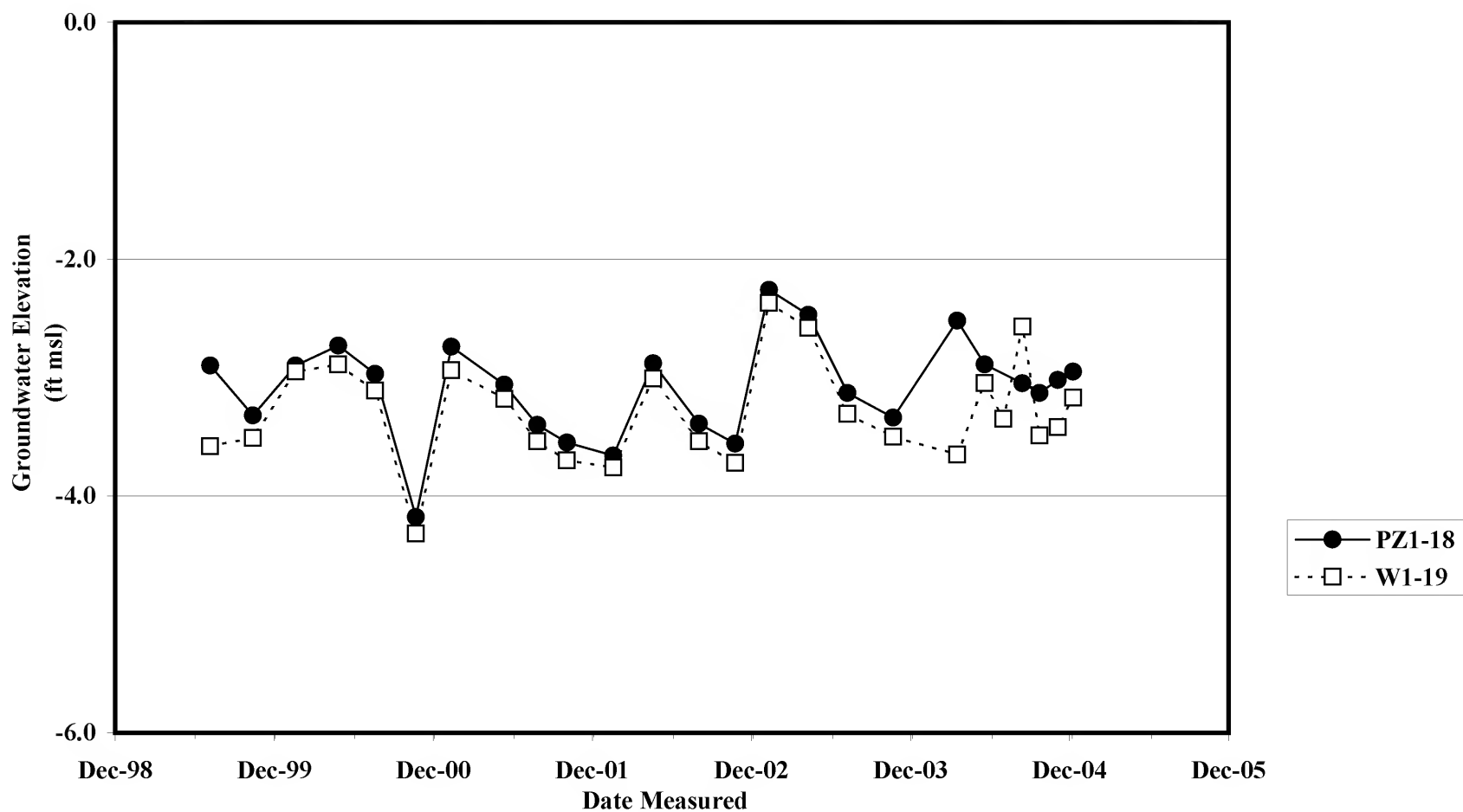
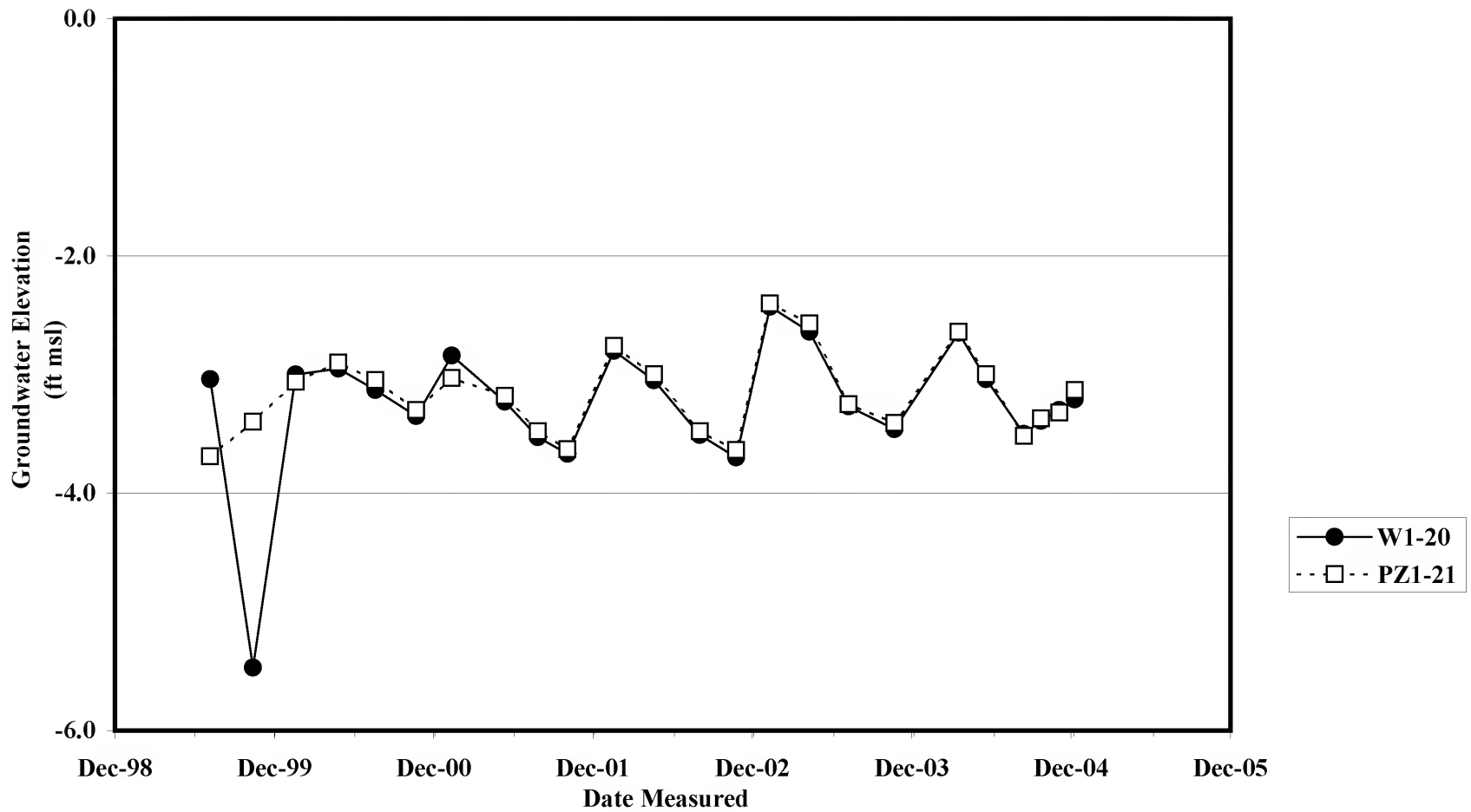


FIGURE D-18

GROUNDWATER HYDROGRAPHS, PIEZOMETER PZ1-21 AND WELL W1-20



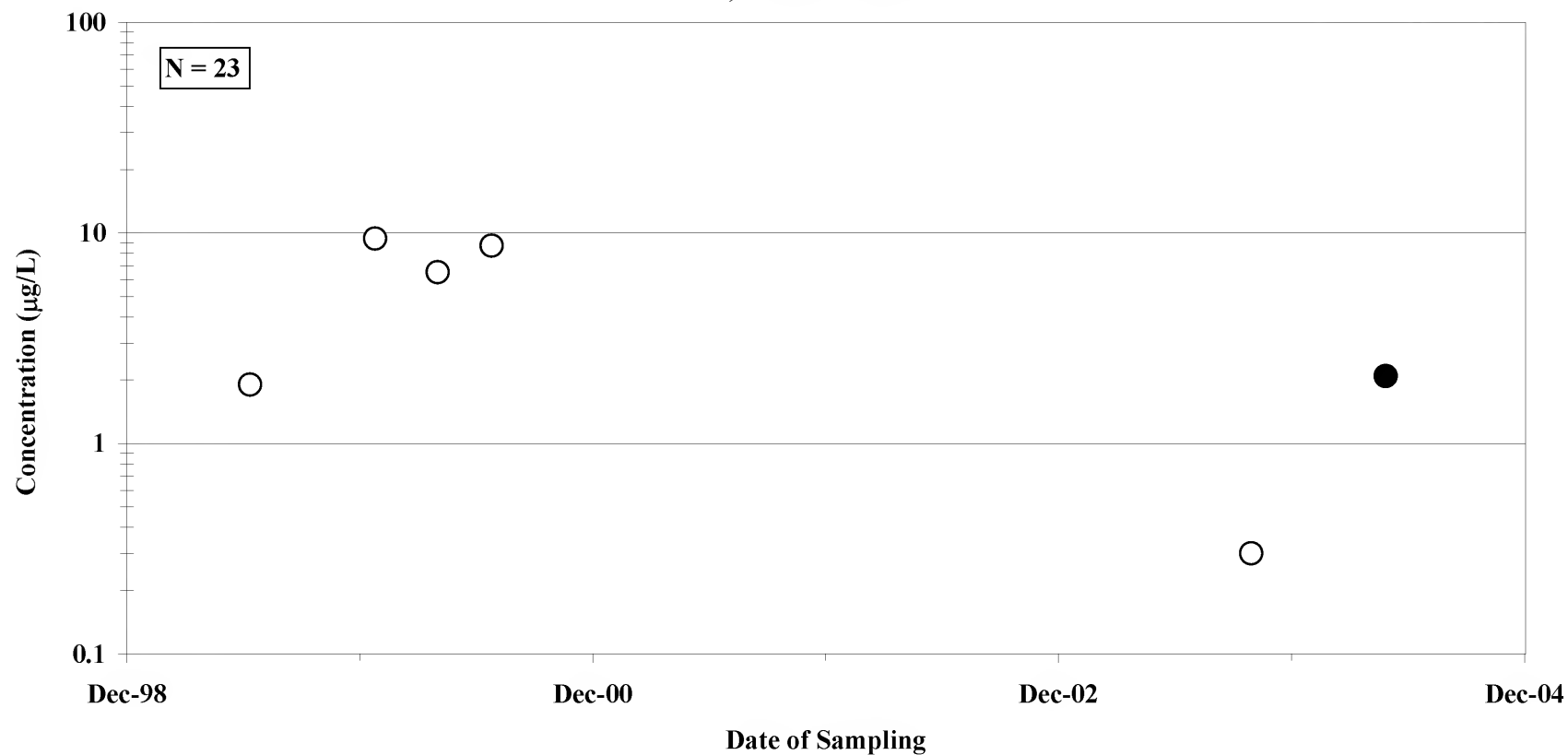
APPENDIX E

GROUNDWATER MONITORING POINT DATA GRAPHS

(Provided on CD only)

FIGURE E-1

**DISSOLVED ANTIMONY CONCENTRATIONS IN BACKGROUND MONITORING WELL W1-5
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

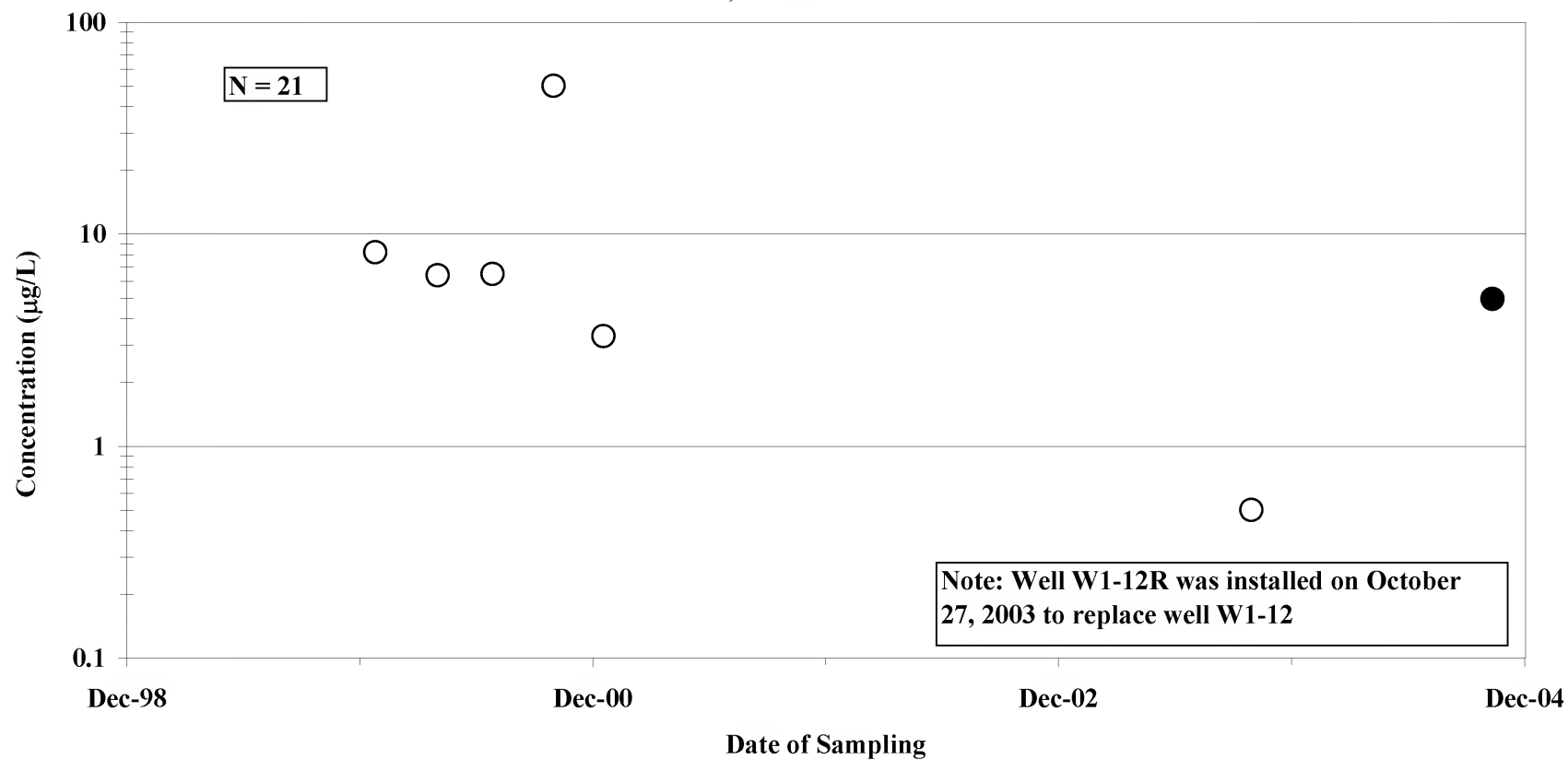


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-2

**DISSOLVED ANTIMONY CONCENTRATIONS IN BACKGROUND MONITORING WELL W1-12 / W1-12R
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

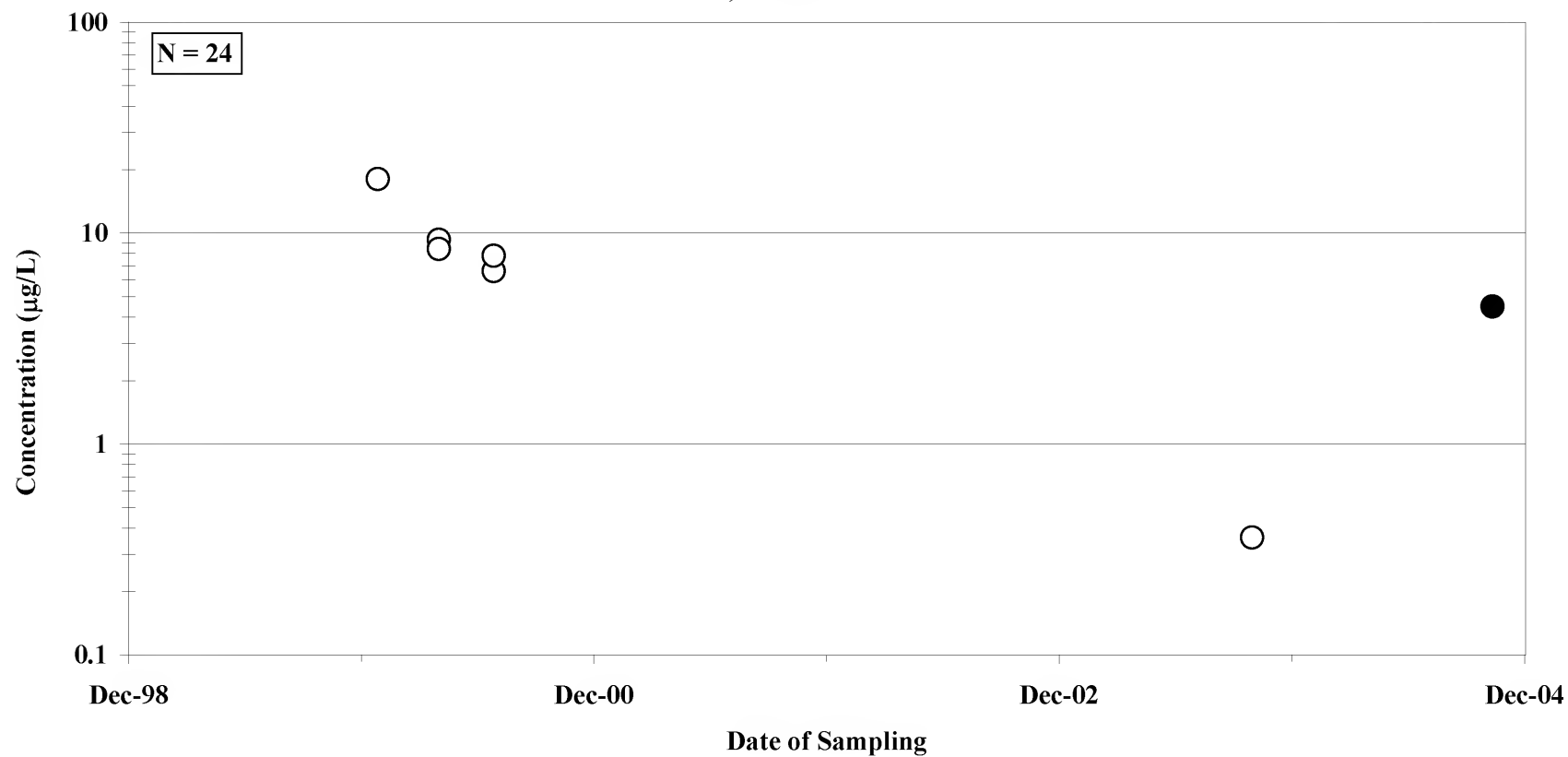


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-3

**DISSOLVED ANTIMONY CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-14
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

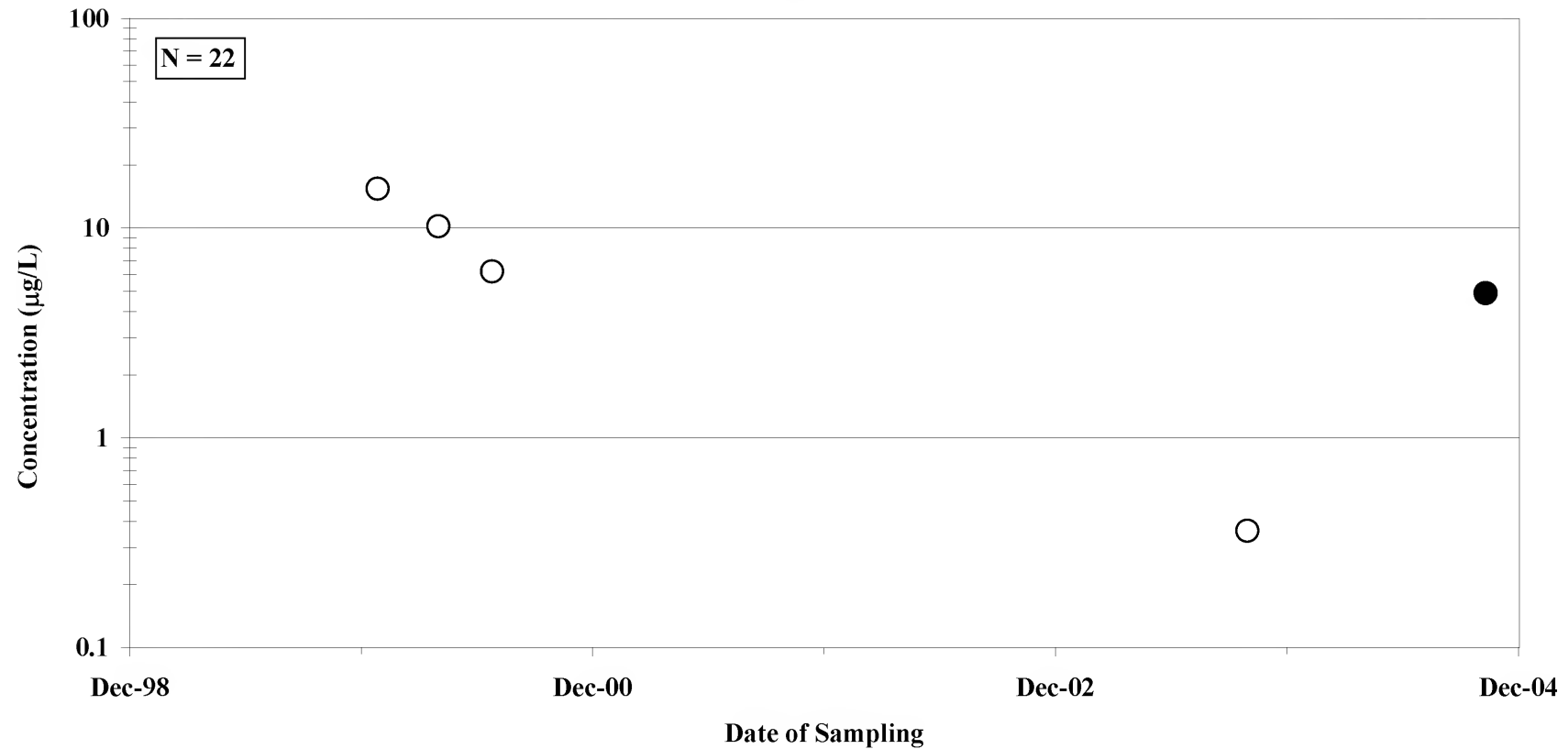


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-4

**DISSOLVED ANTIMONY CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-15
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

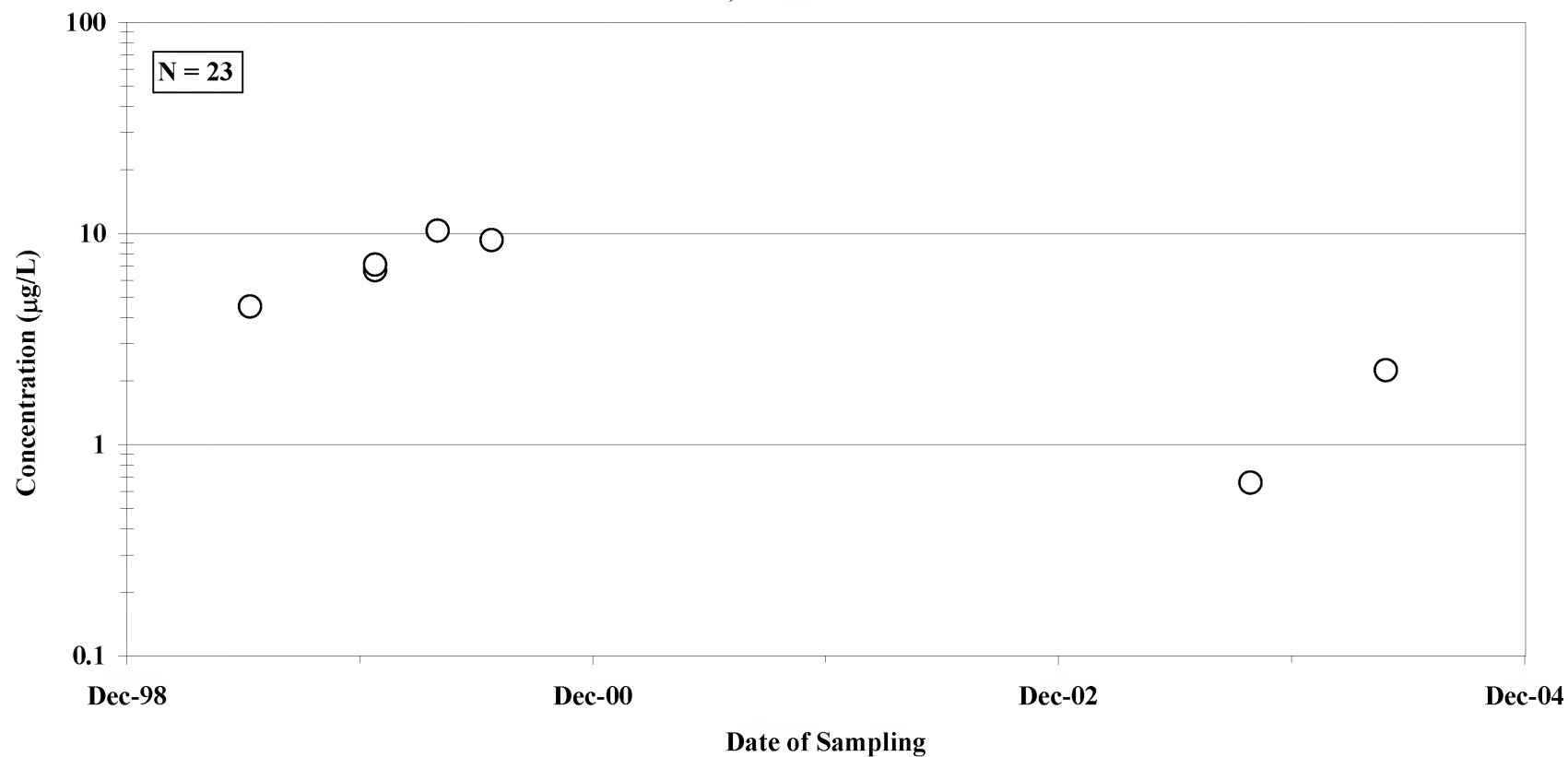


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-5

**DISSOLVED ANTIMONY CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-16
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

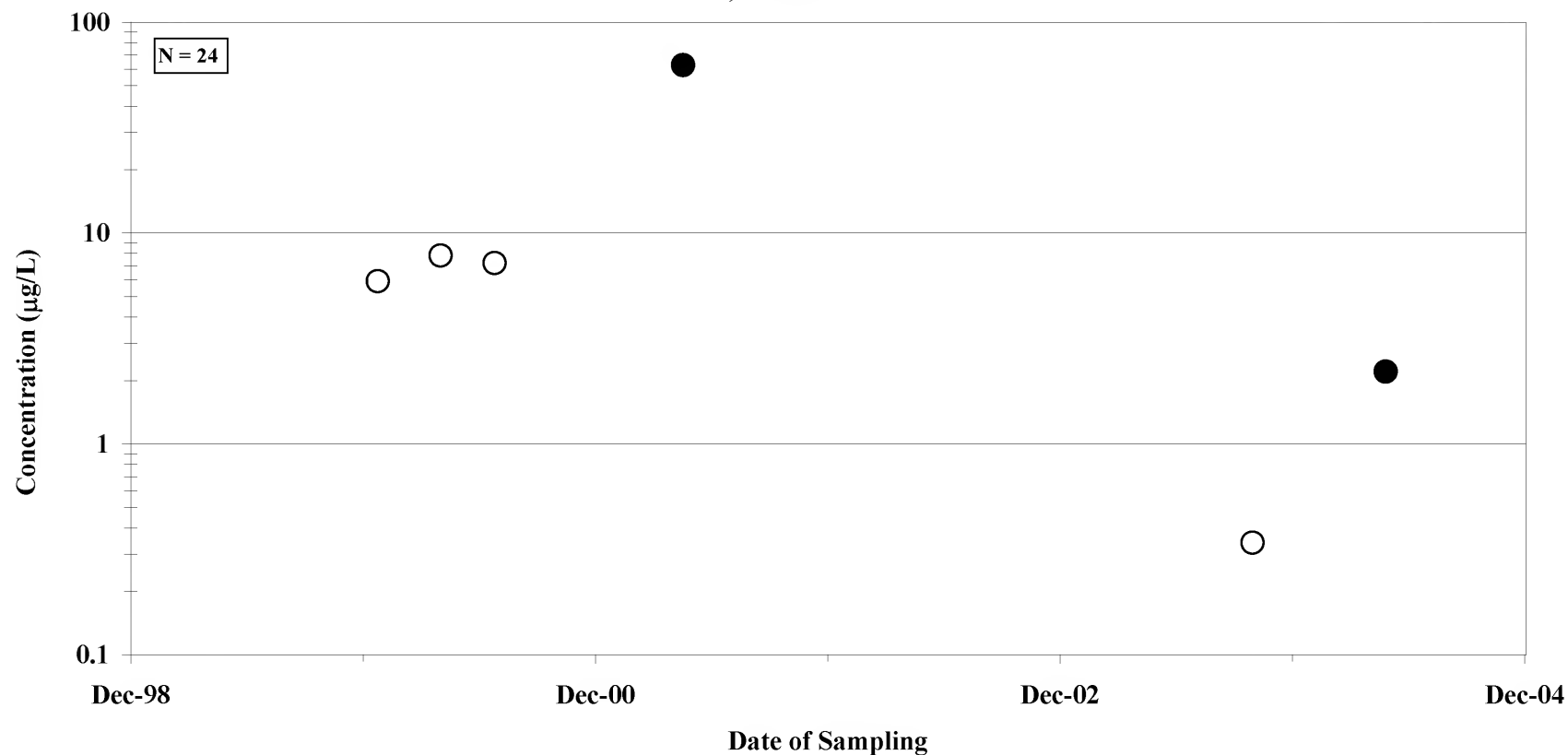


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-6

**DISSOLVED ANTIMONY CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-19
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

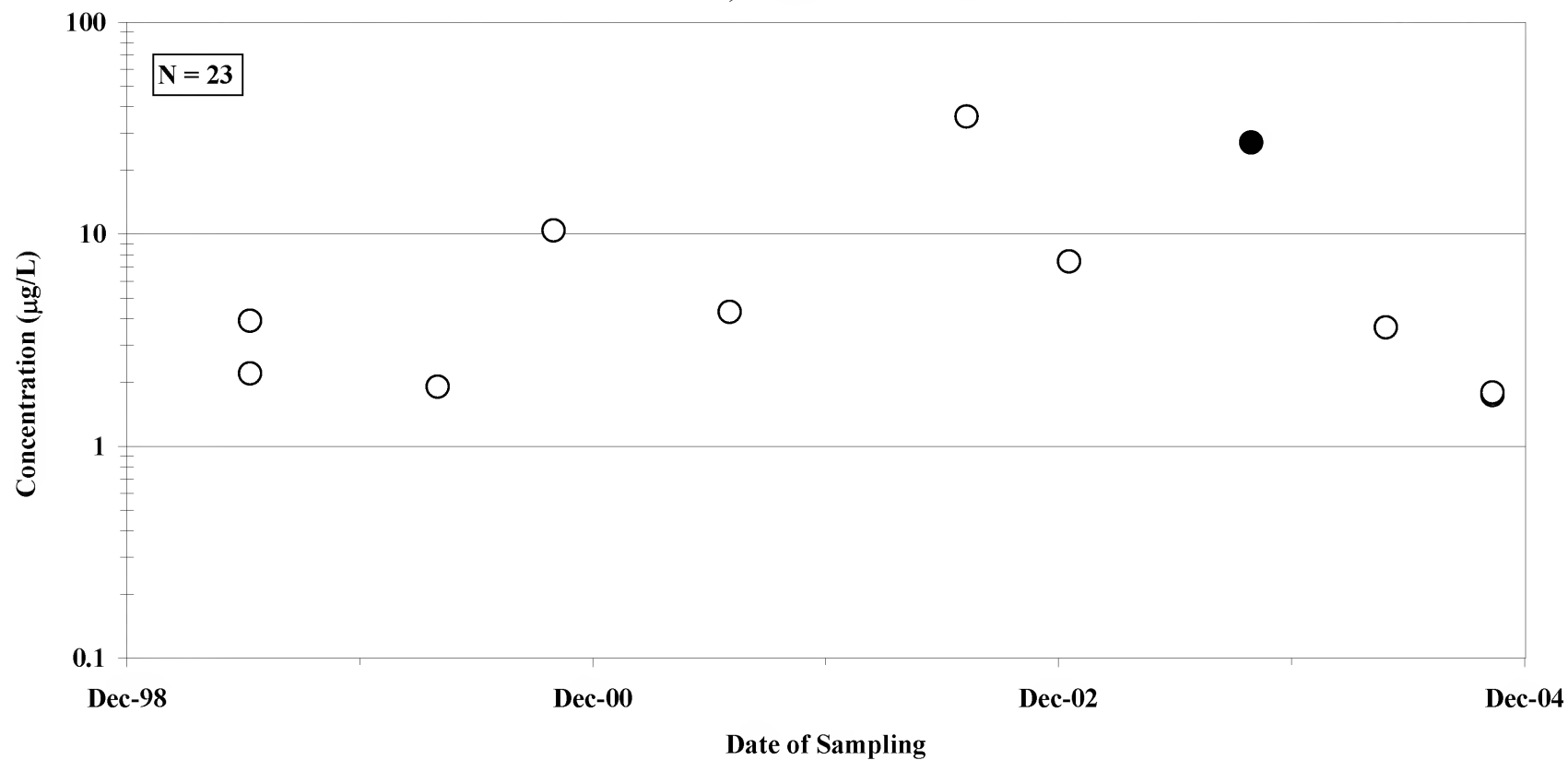


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-7

**DISSOLVED ARSENIC CONCENTRATIONS IN BACKGROUND MONITORING WELL W1-5
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

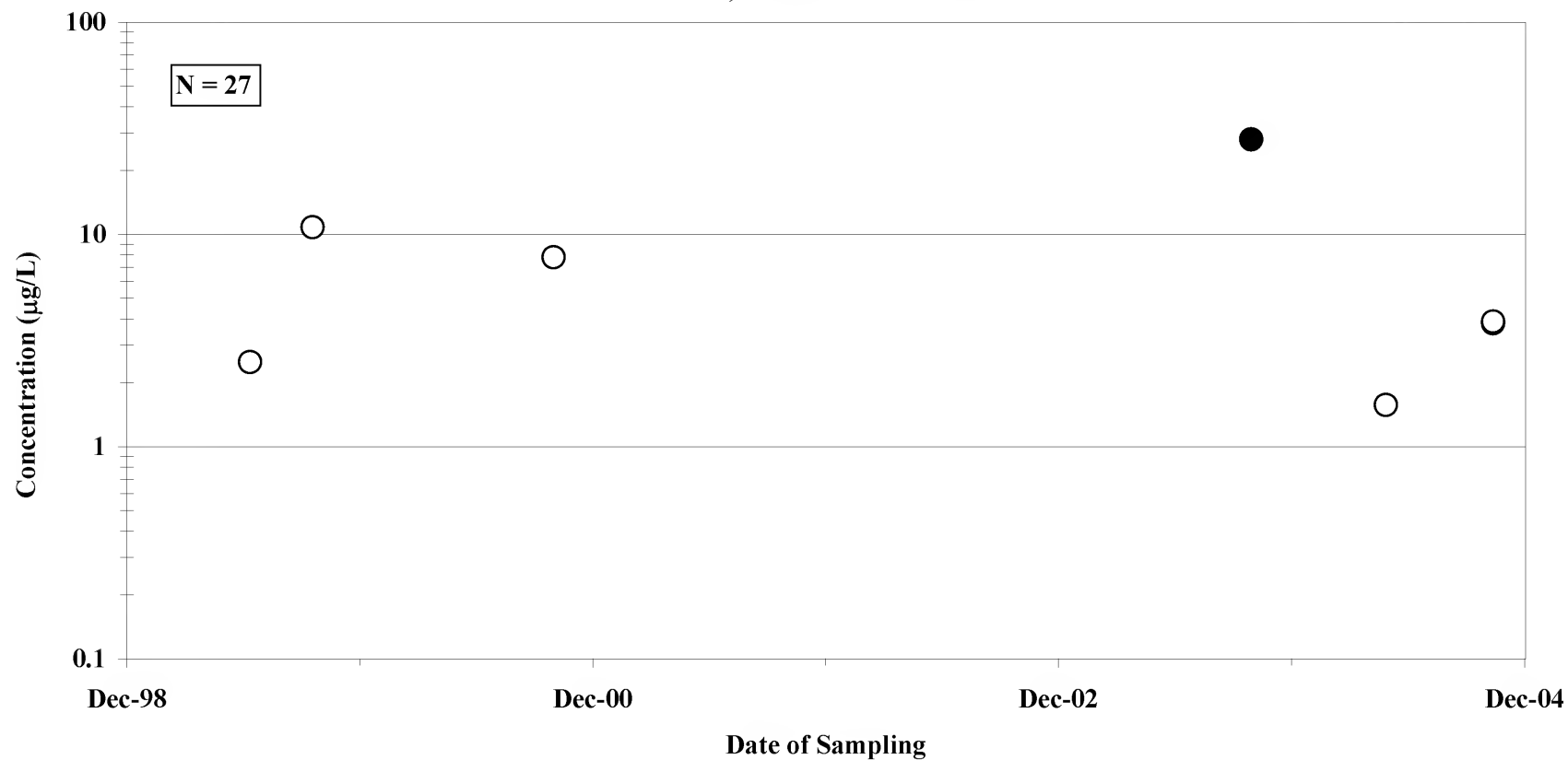


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-8

**DISSOLVED ARSENIC CONCENTRATIONS IN BACKGROUND MONITORING WELL W1-8
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

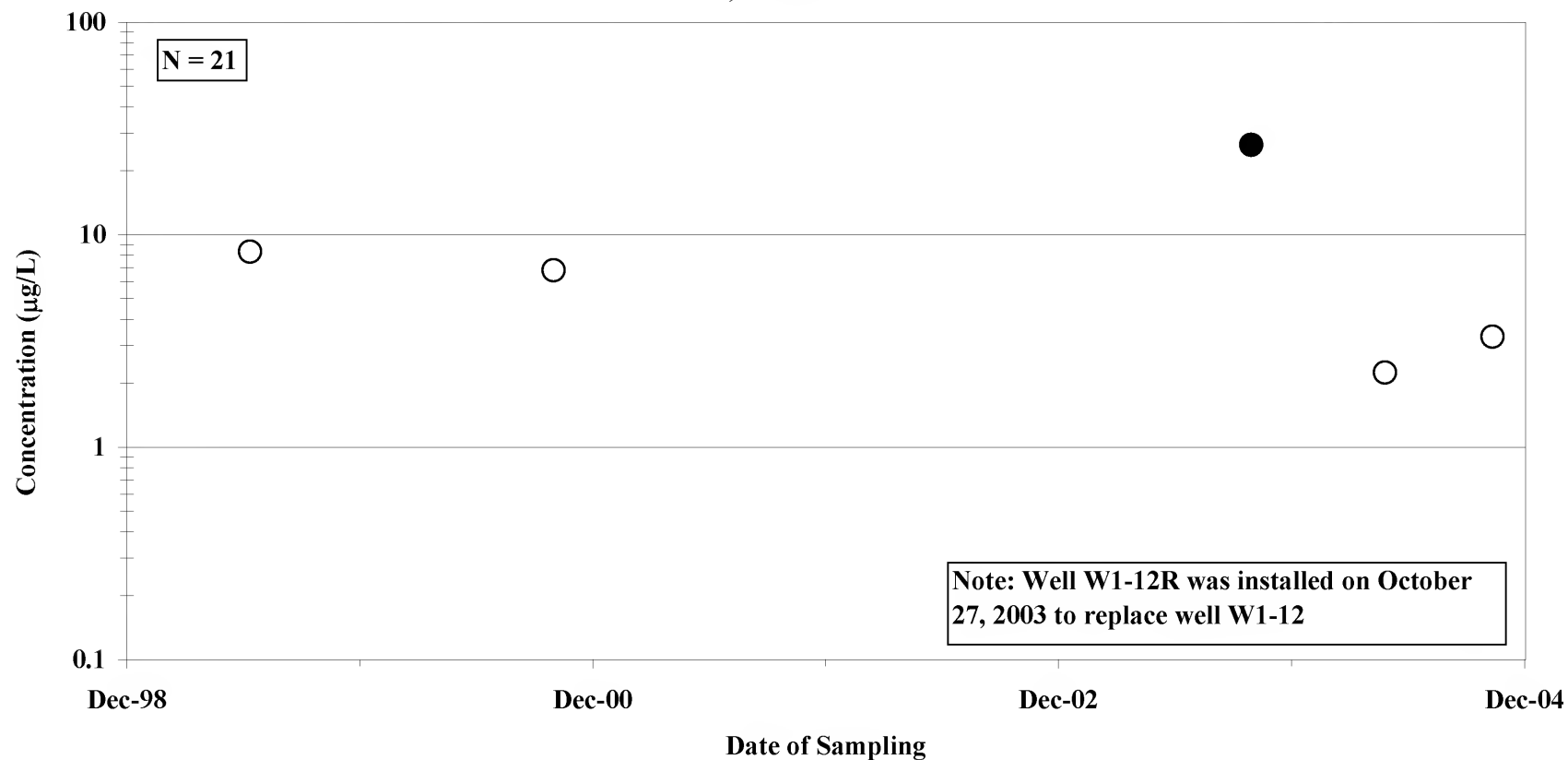


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-9

**DISSOLVED ARSENIC CONCENTRATIONS IN BACKGROUND MONITORING WELL W1-12 / W1-12R
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

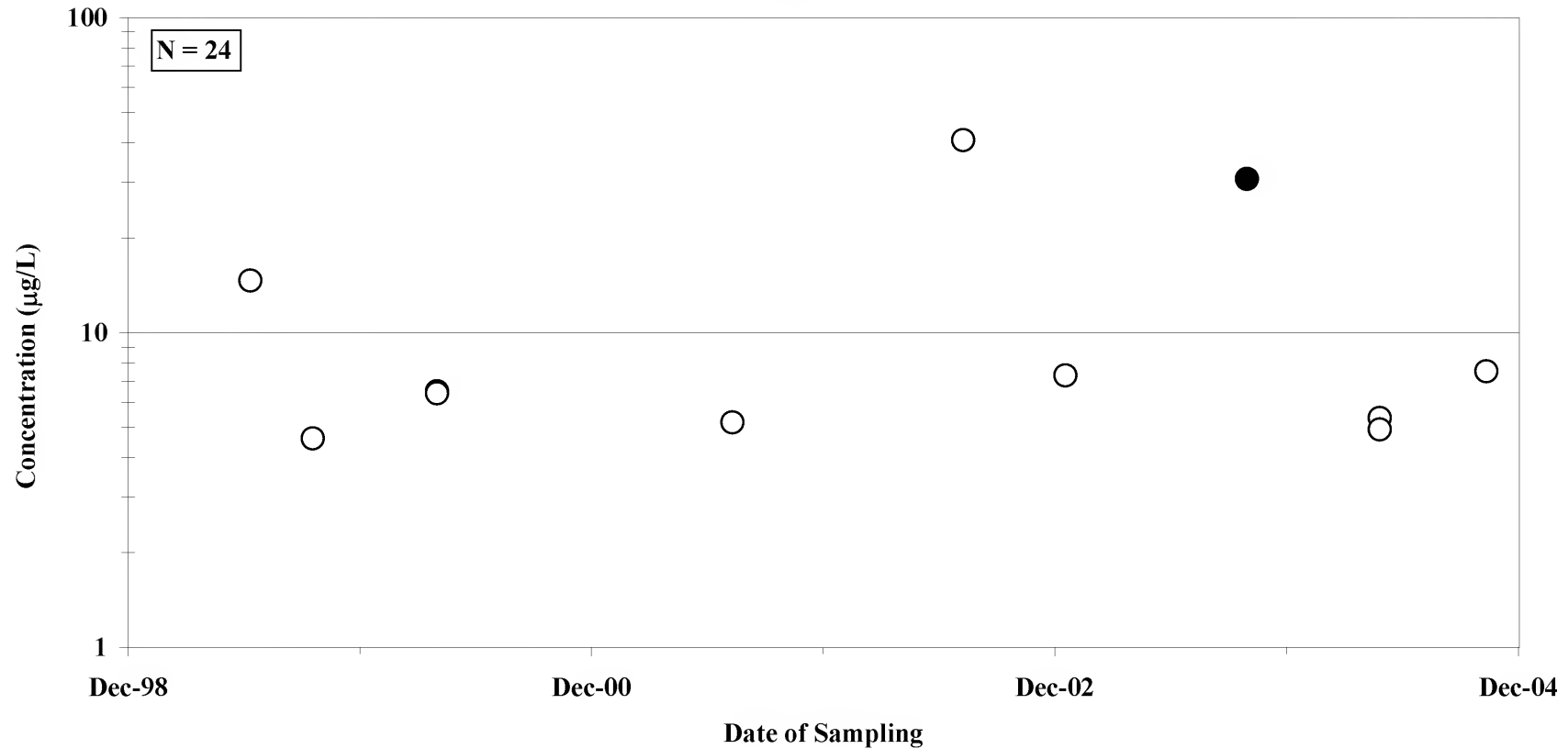


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-10

**DISSOLVED ARSENIC CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-14
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

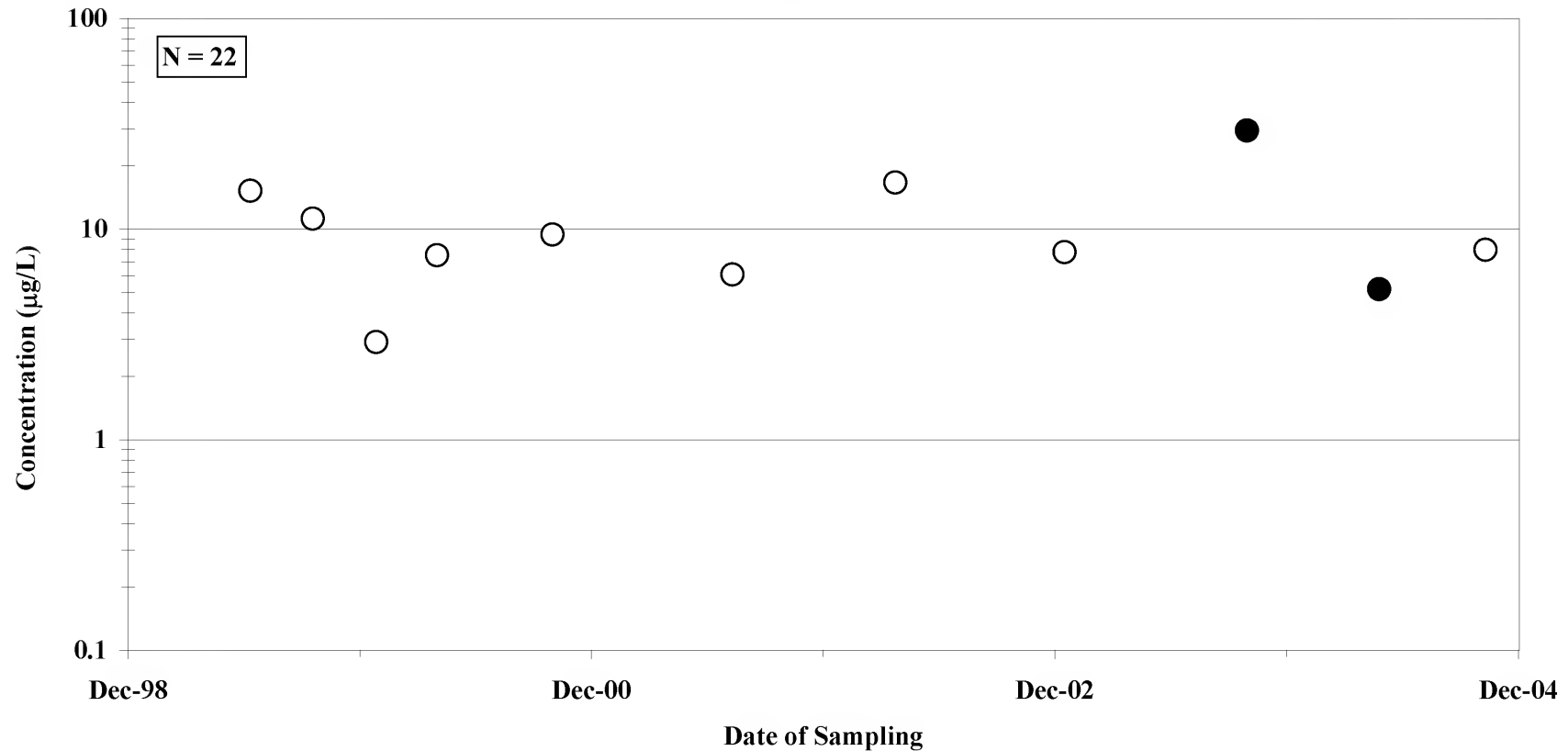


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-11

**DISSOLVED ARSENIC CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-15
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

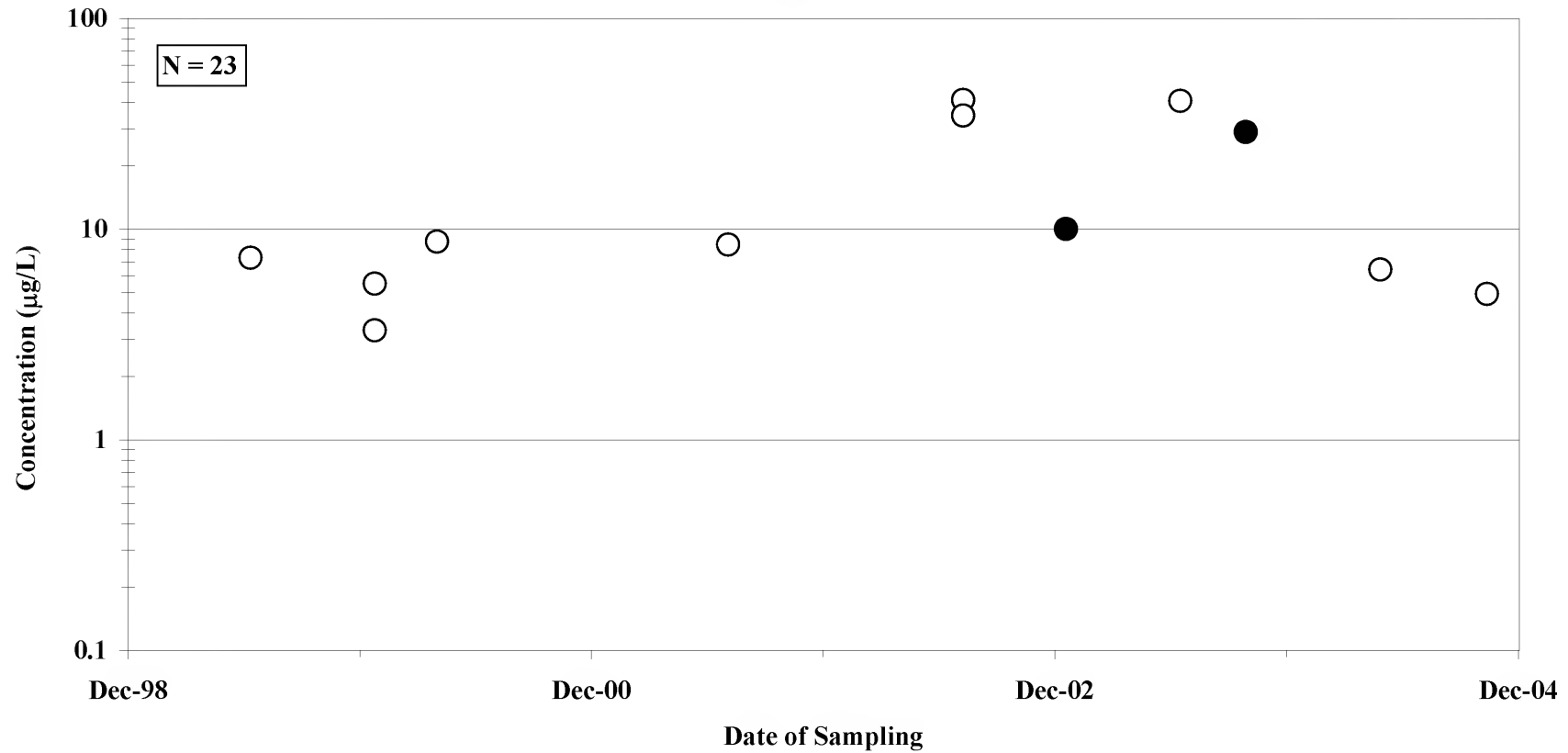


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-12

**DISSOLVED ARSENIC CONCENTRATIONS IN DOWNGRADIENT MONITORING WELL W1-16
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

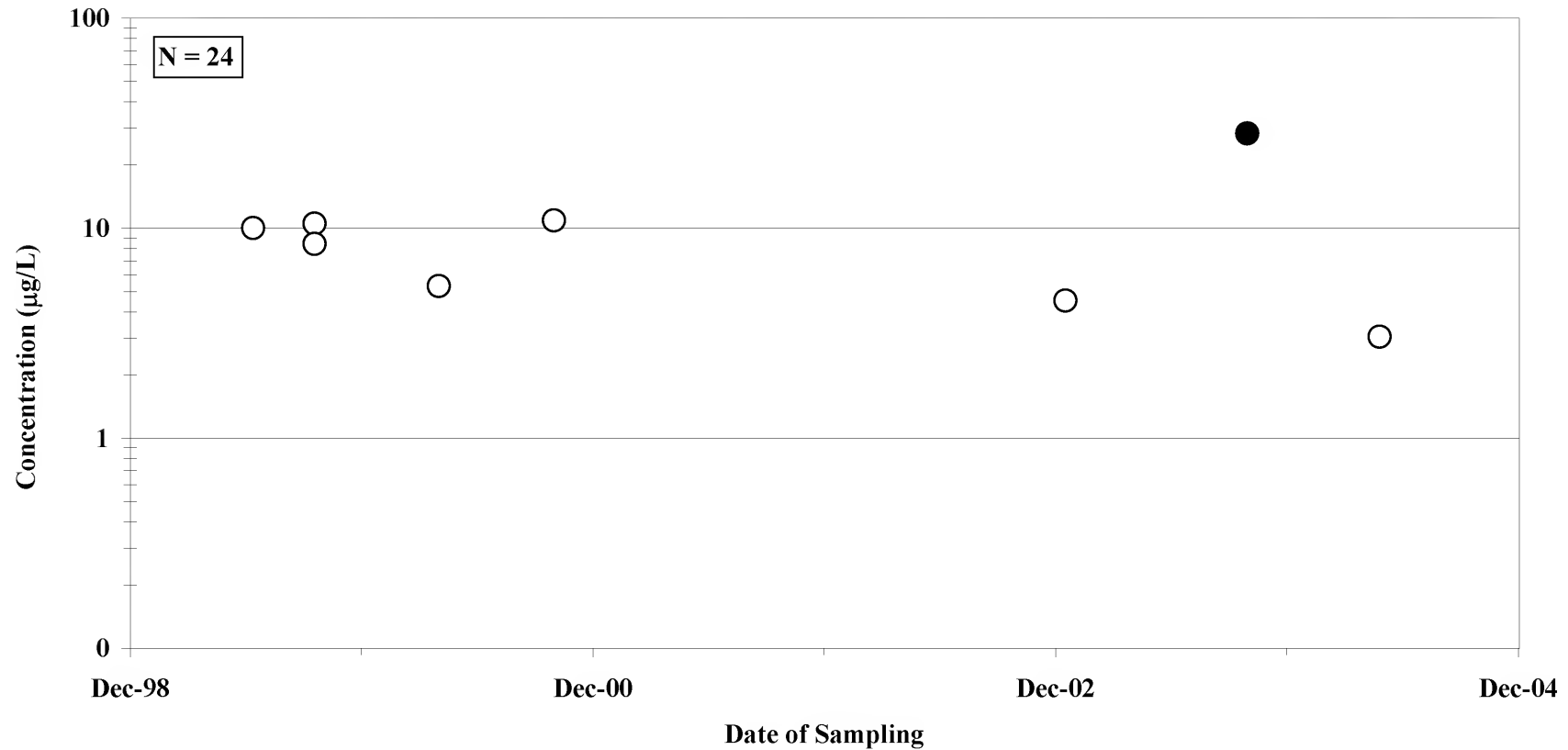


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-13

**DISSOLVED ARSENIC CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-19
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

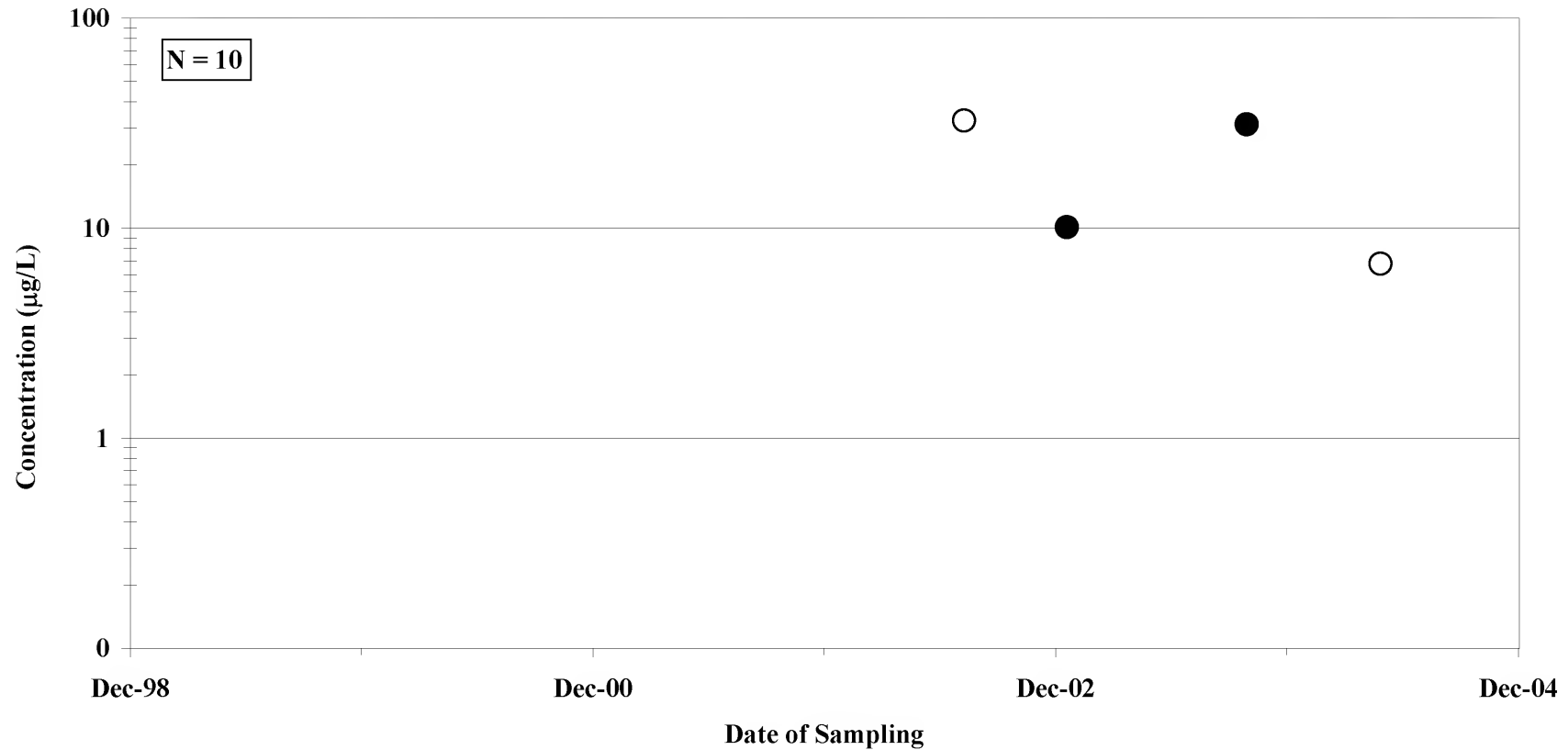


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-14

**DISSOLVED ARSENIC CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-24
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

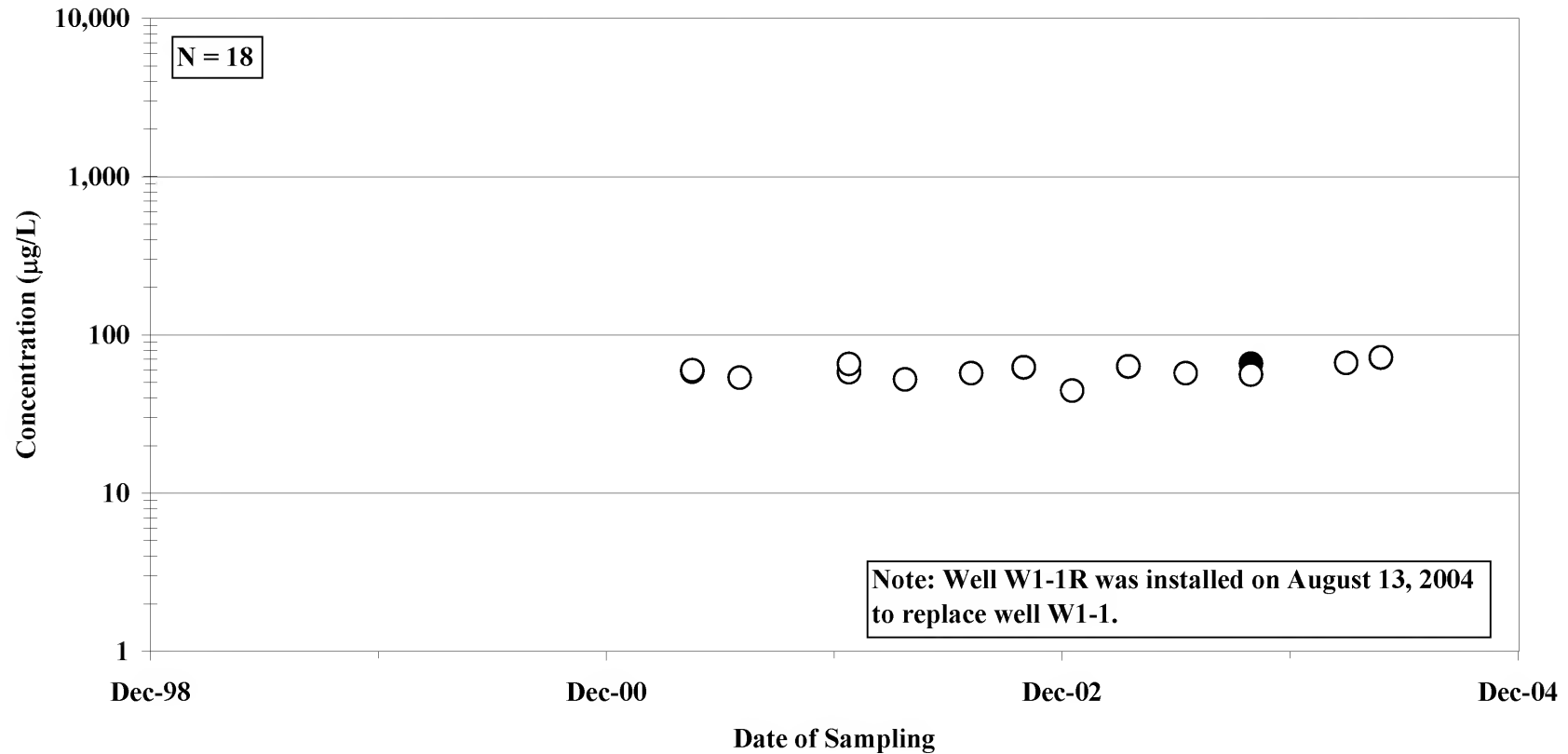


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-15

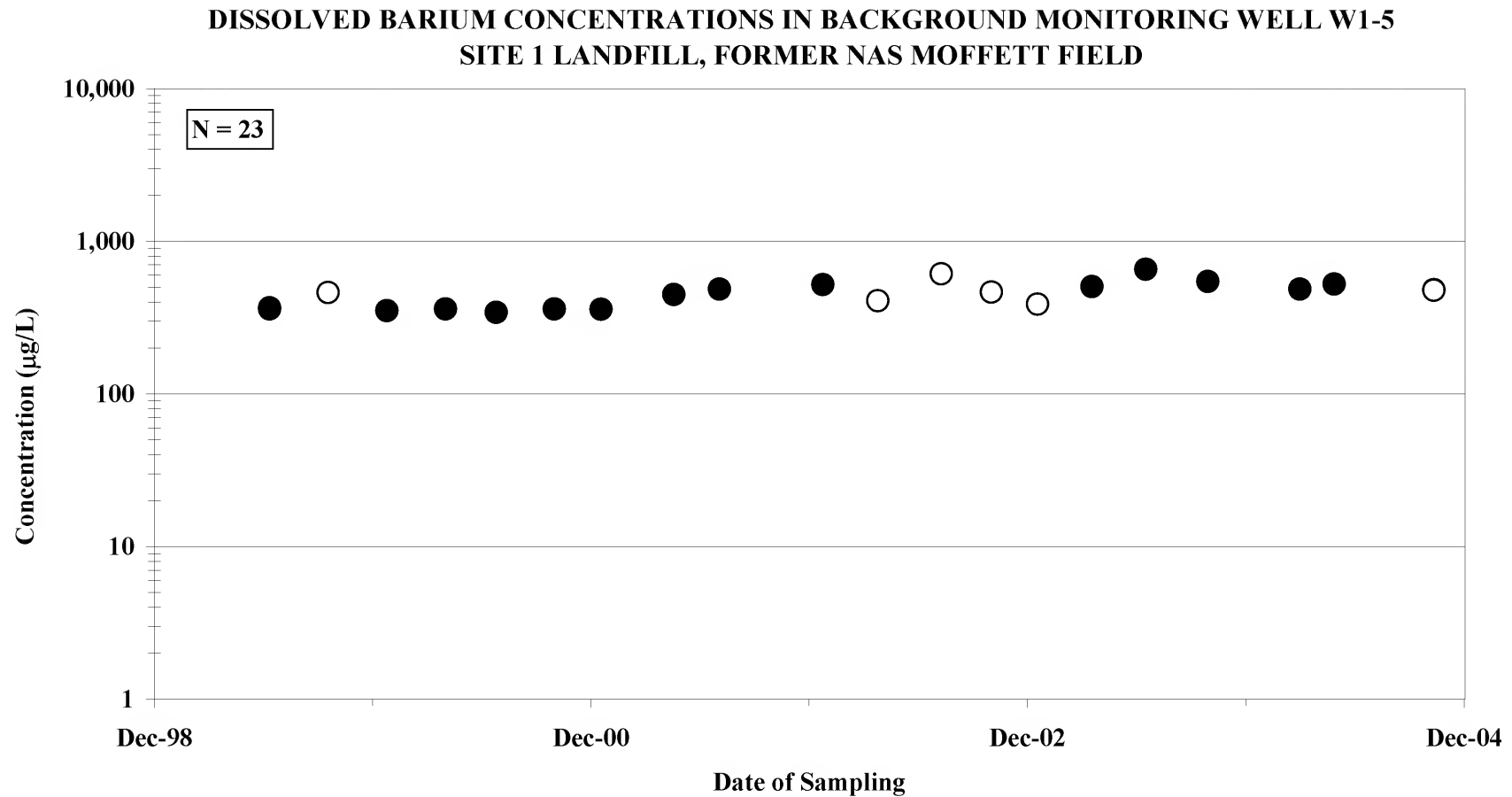
**DISSOLVED BARIUM CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-1 / W1-1R
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**



Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-16

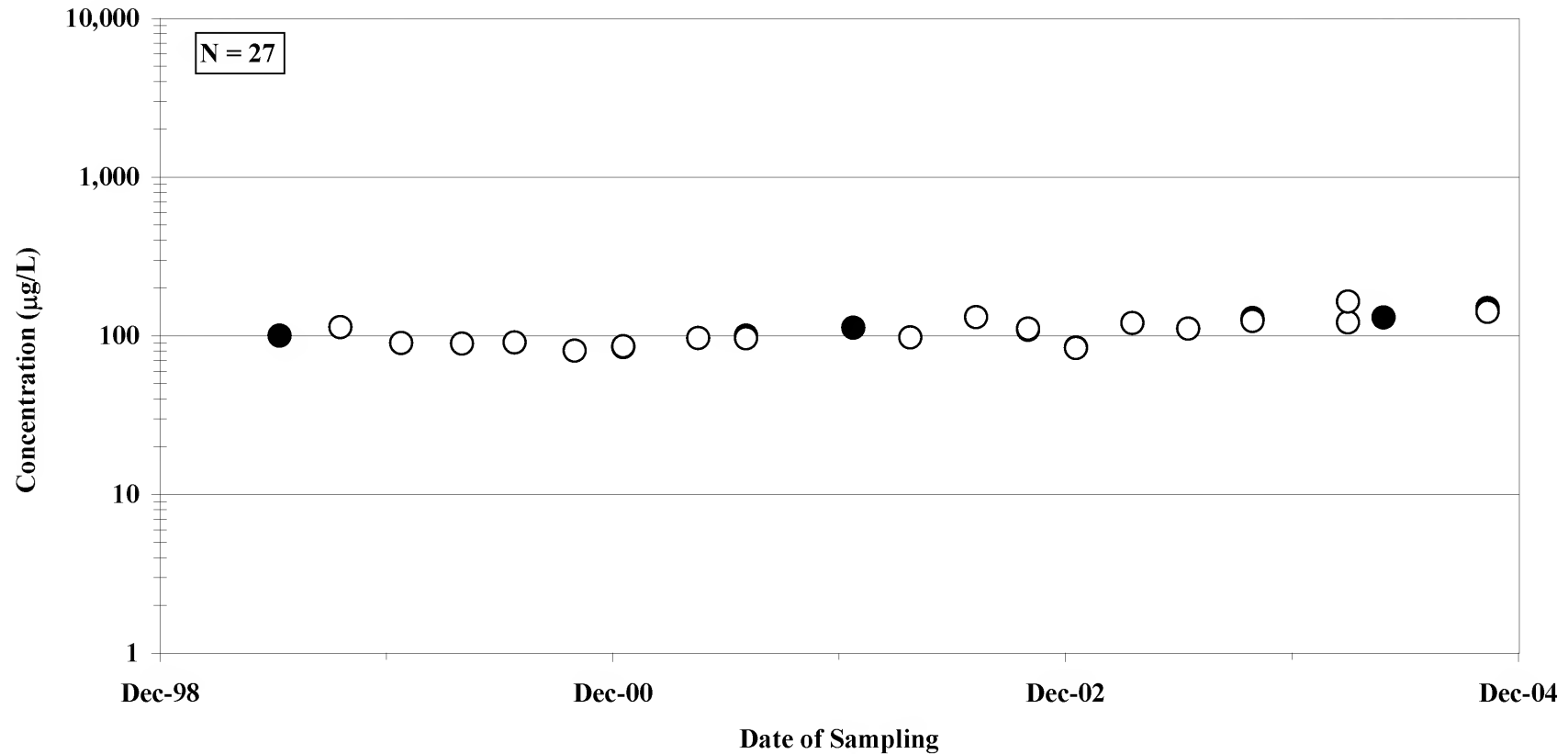


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-17

**DISSOLVED BARIUM CONCENTRATIONS IN BACKGROUND MONITORING WELL W1-8
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

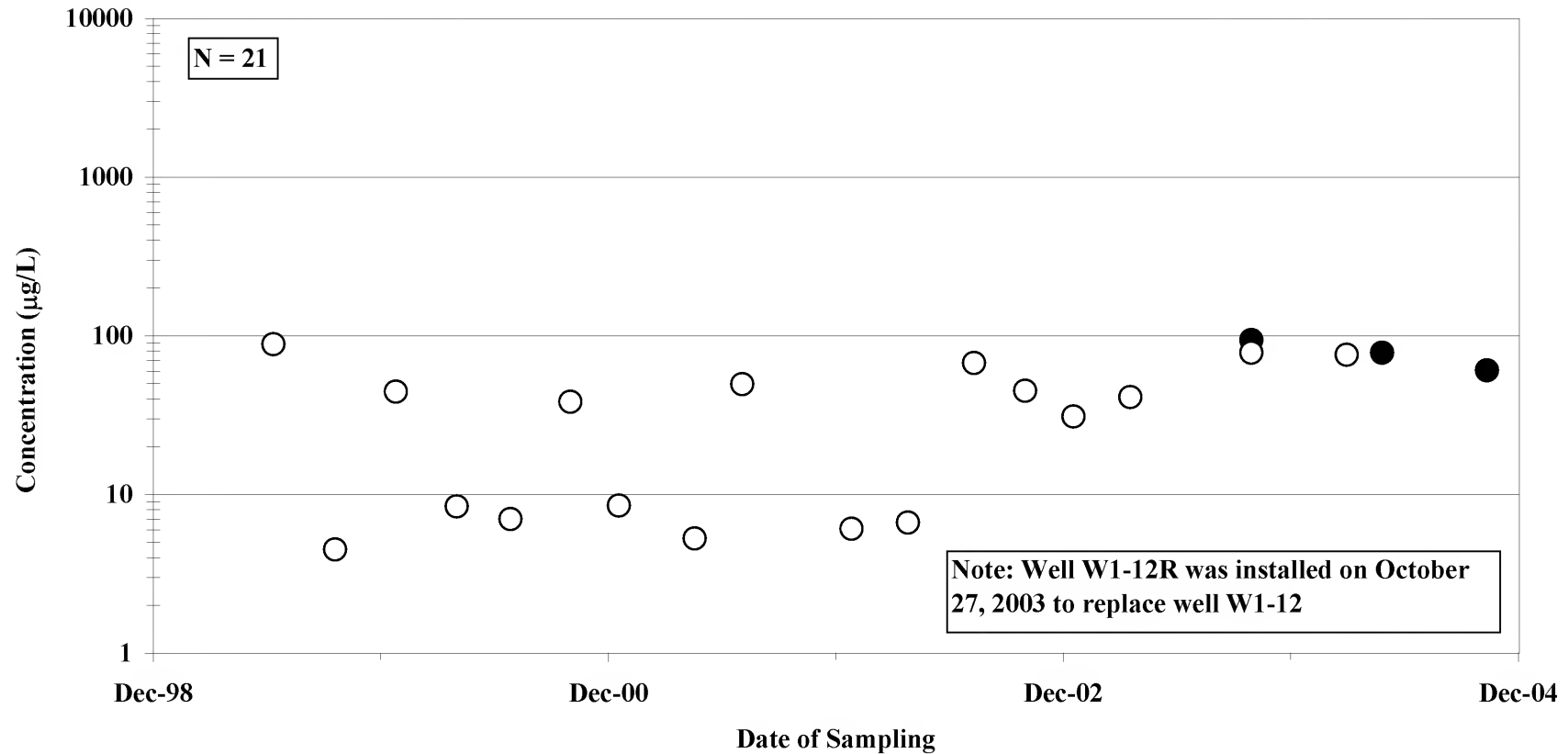


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-18

**DISSOLVED BARIUM CONCENTRATIONS IN BACKGROUND MONITORING WELL W1-12 / W1-12R
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

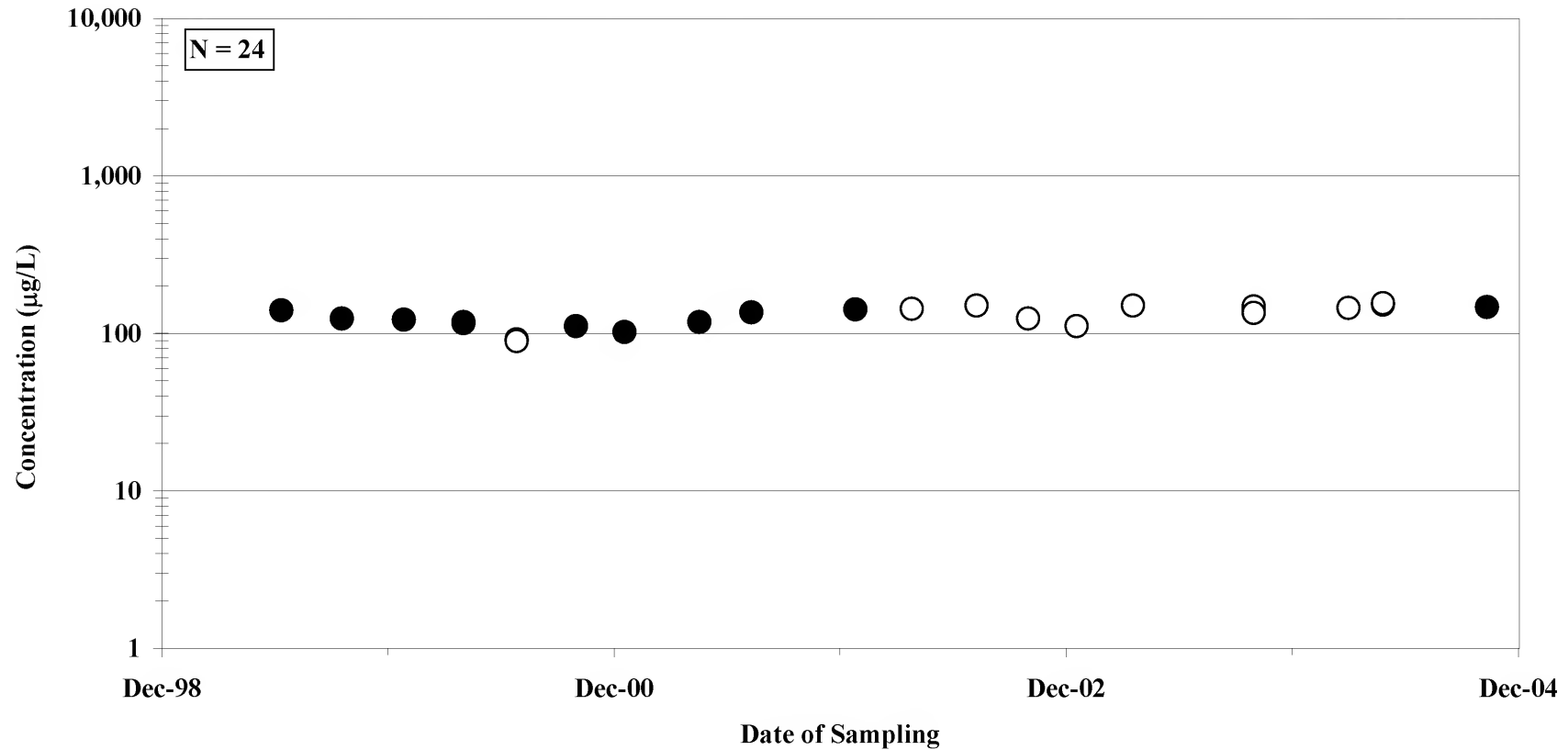


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-19

**DISSOLVED BARIUM CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-14
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

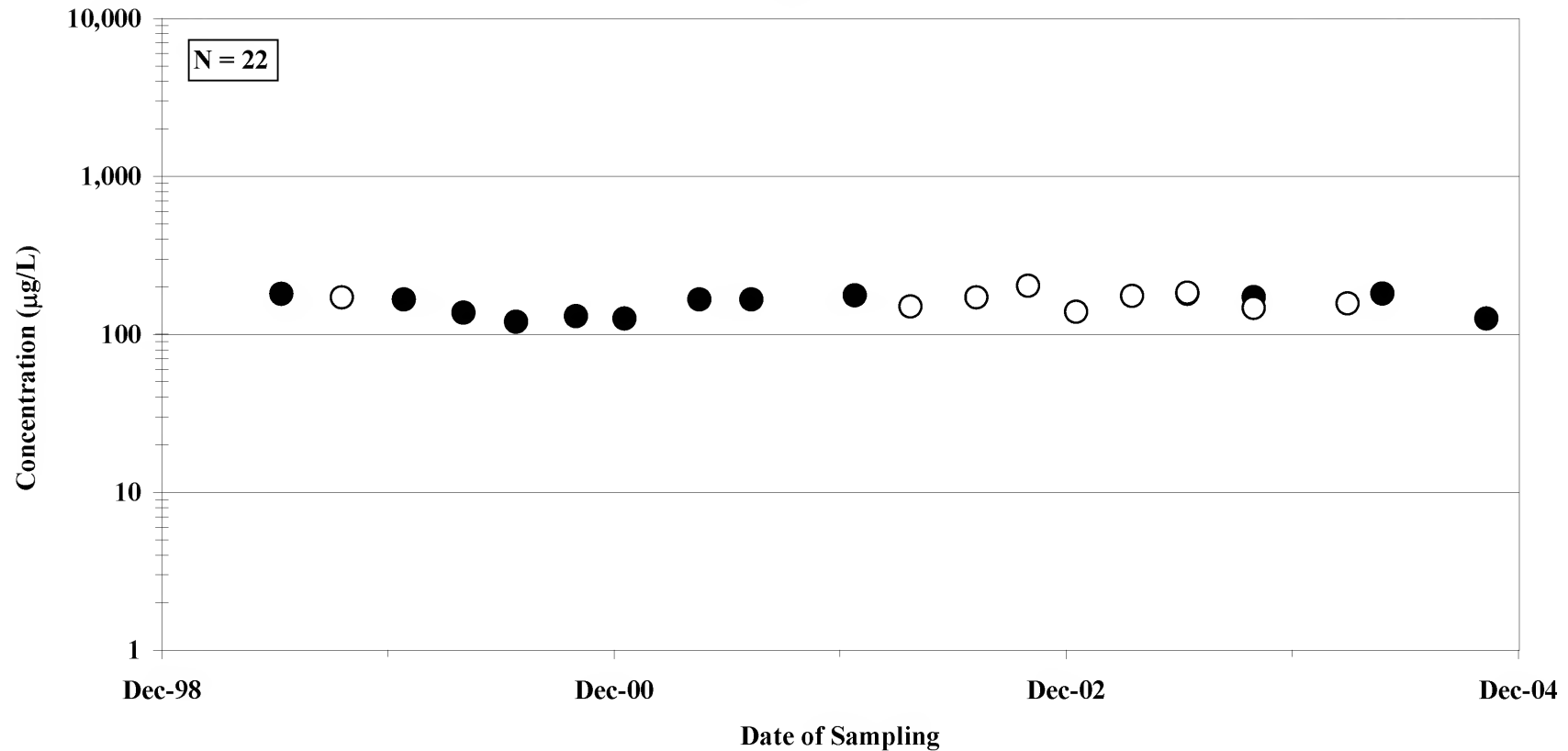


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-20

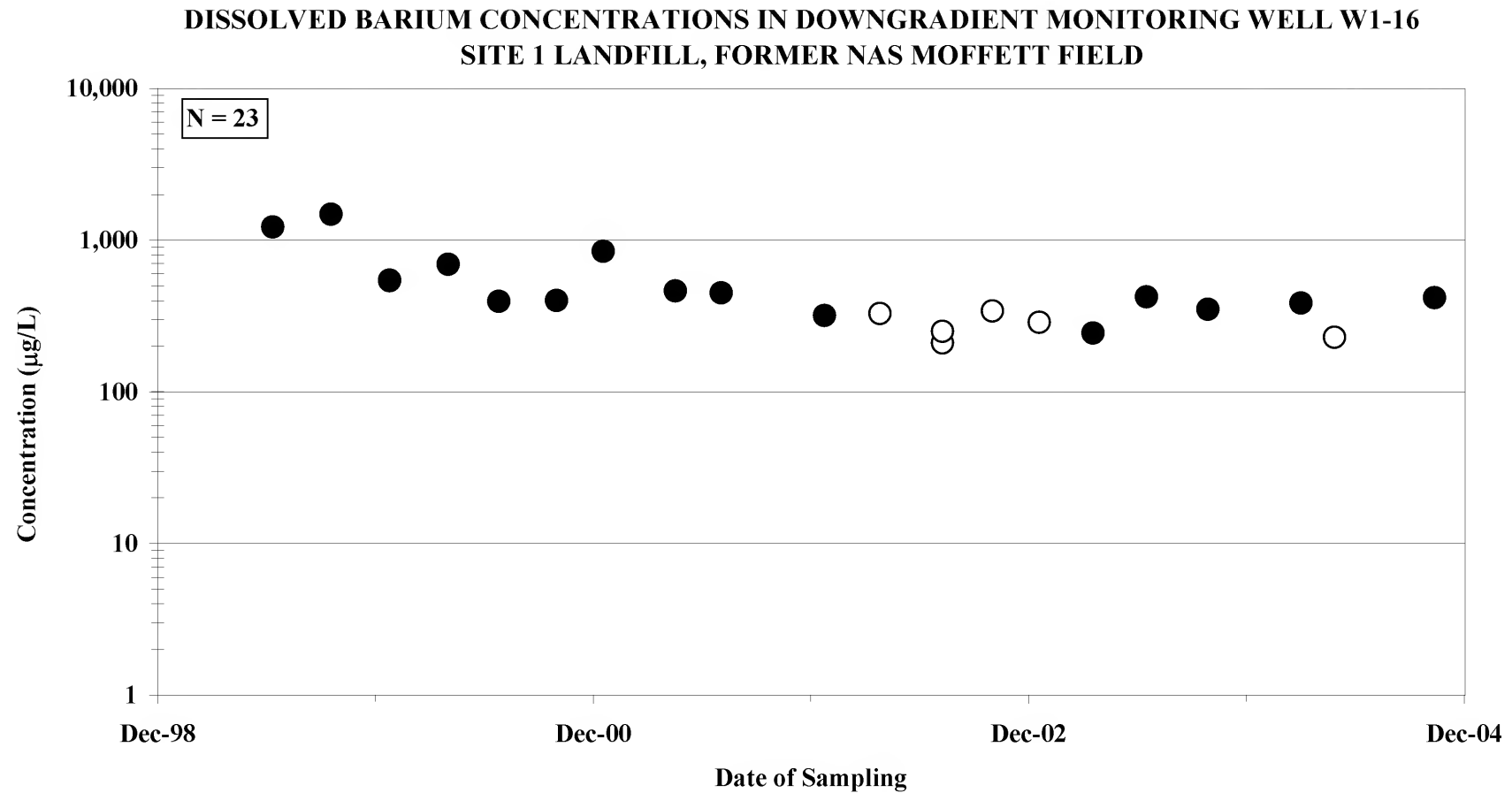
**DISSOLVED BARIUM CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-15
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**



Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-21



Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

**DISSOLVED BARIUM CONCENTRATIONS IN DOWNGRADIENT MONITORING WELL W1-19
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

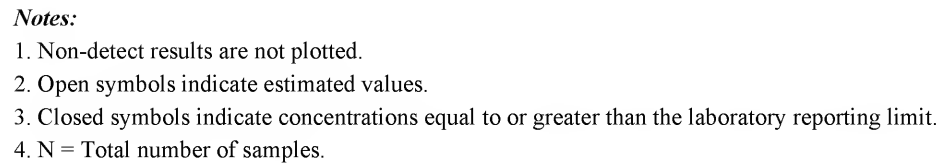
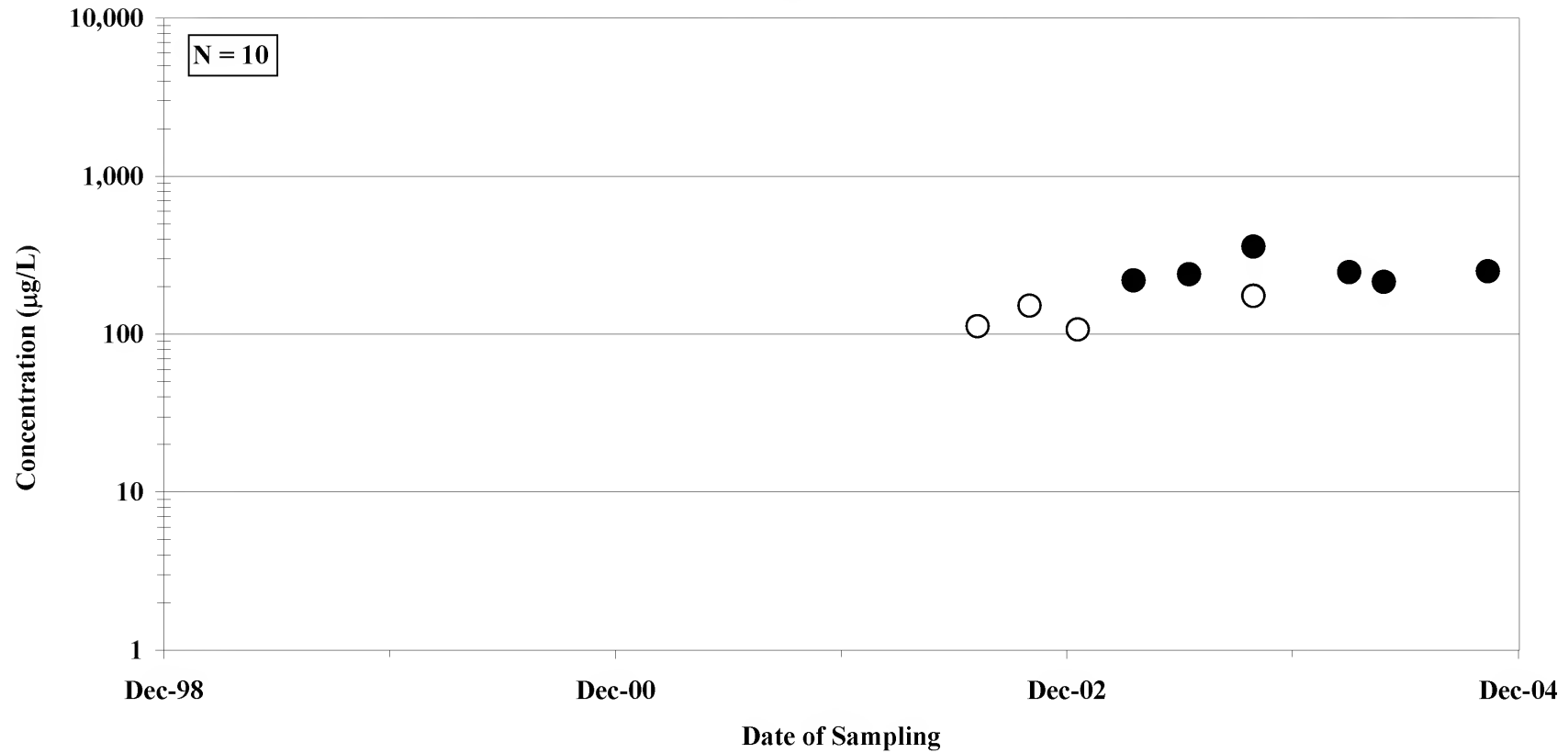


FIGURE E-23

**DISSOLVED BARIUM CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-24
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

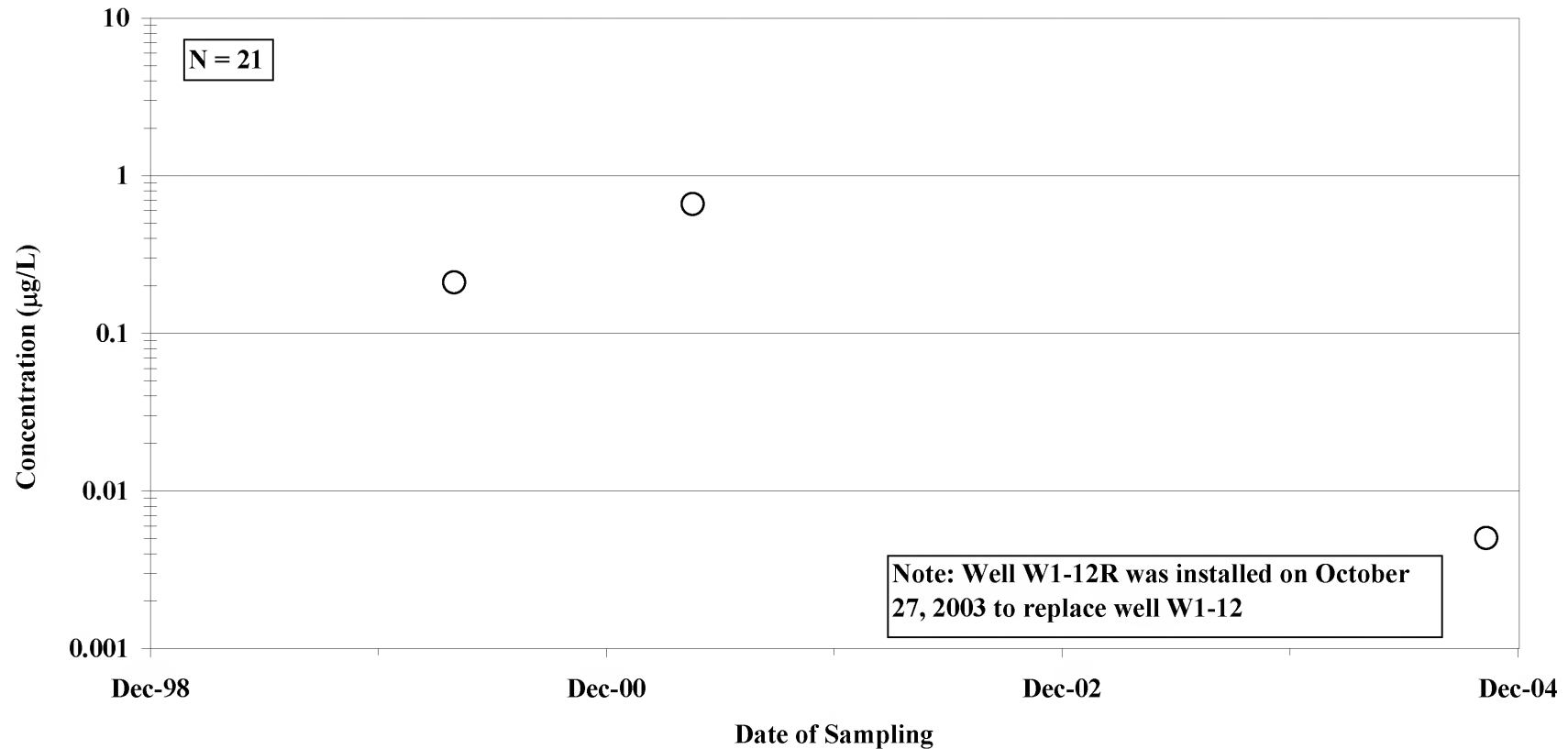


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-24

**DISSOLVED BERYLLIUM CONCENTRATIONS IN BACKGROUND MONITORING WELL W1-12 / W1-12R
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

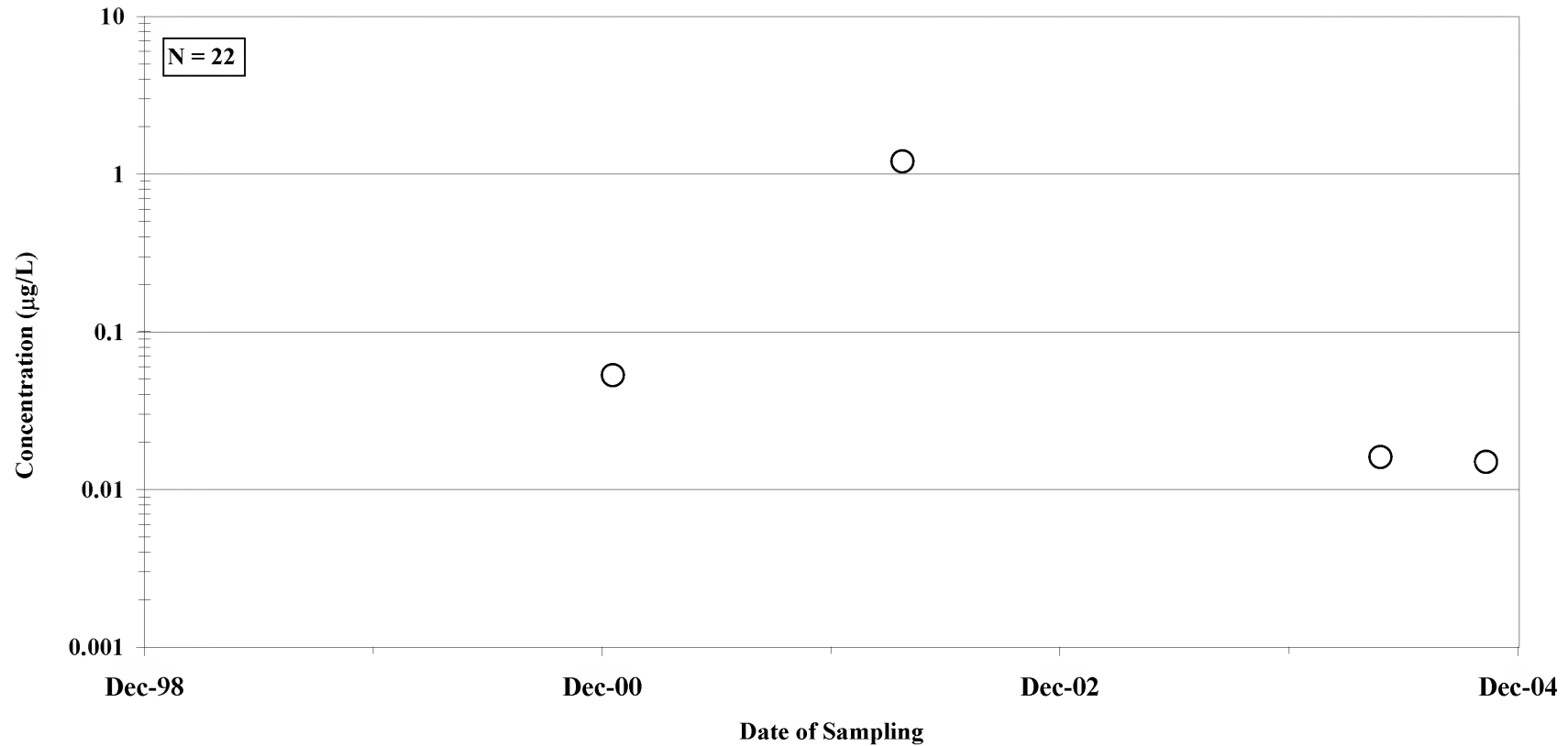


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-25

**DISSOLVED BERYLLIUM CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-15
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

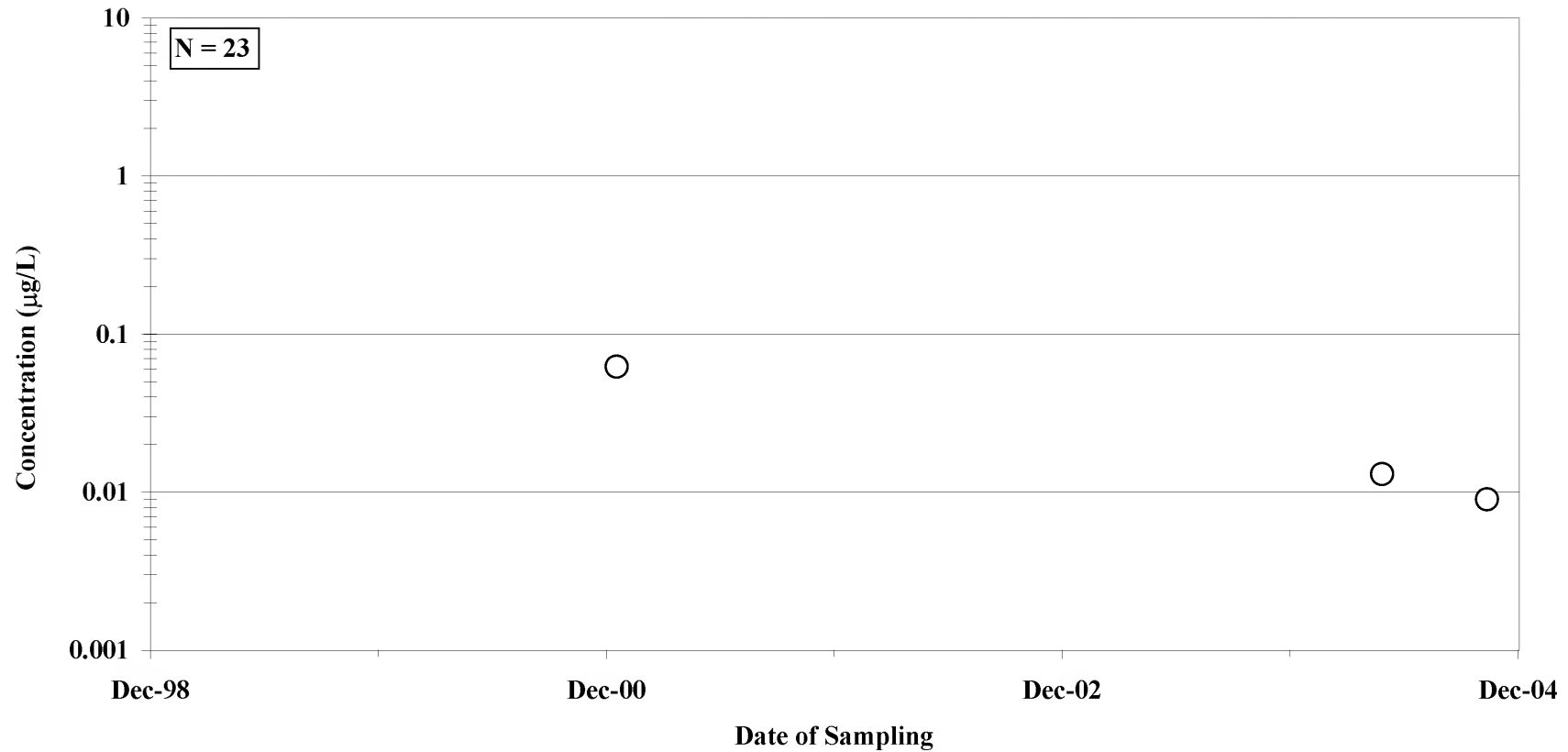


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-26

**DISSOLVED BERYLLIUM CONCENTRATIONS IN DOWNGRADIANT MONITORING WELL W1-16
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

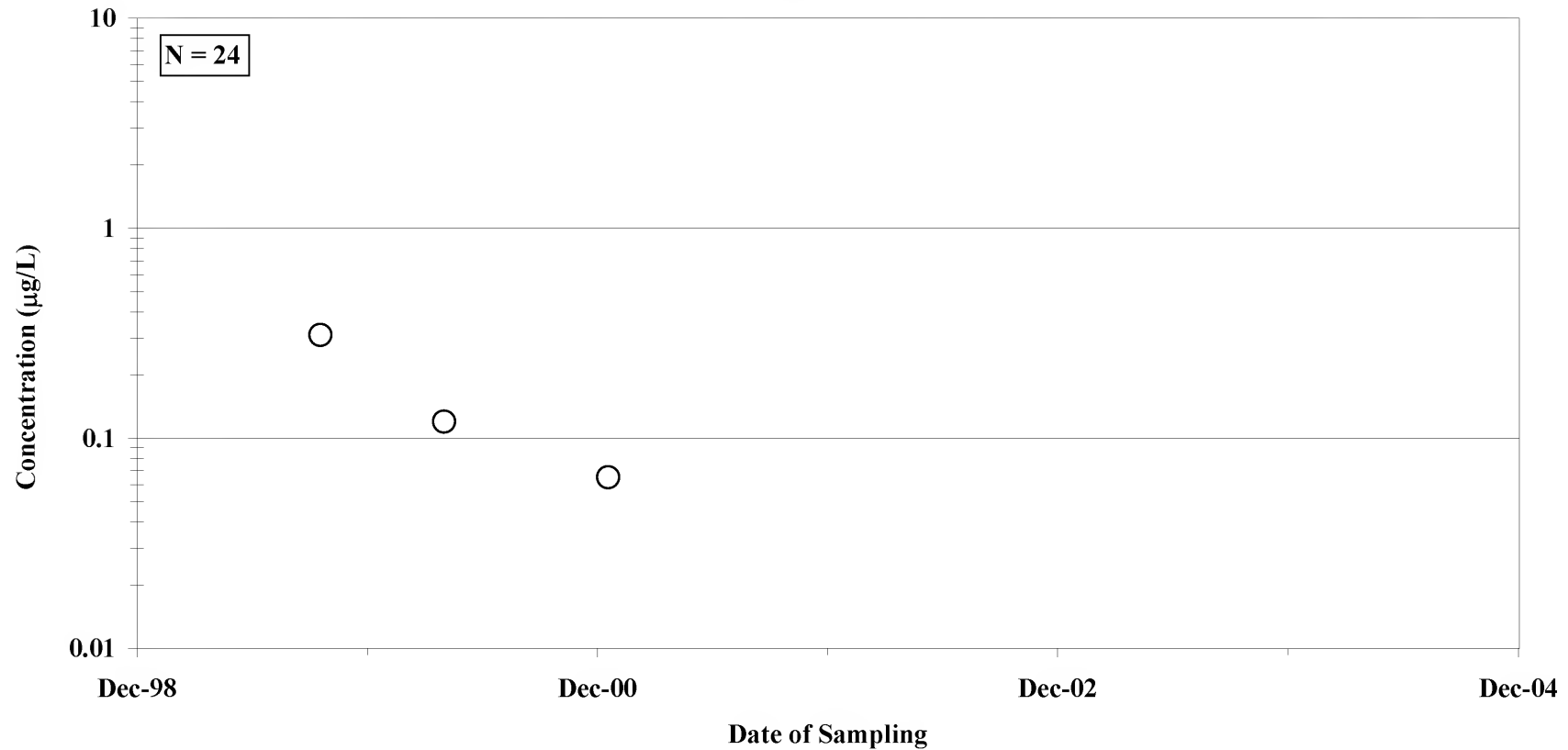


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-27

**DISSOLVED BERYLLIUM CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-19
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

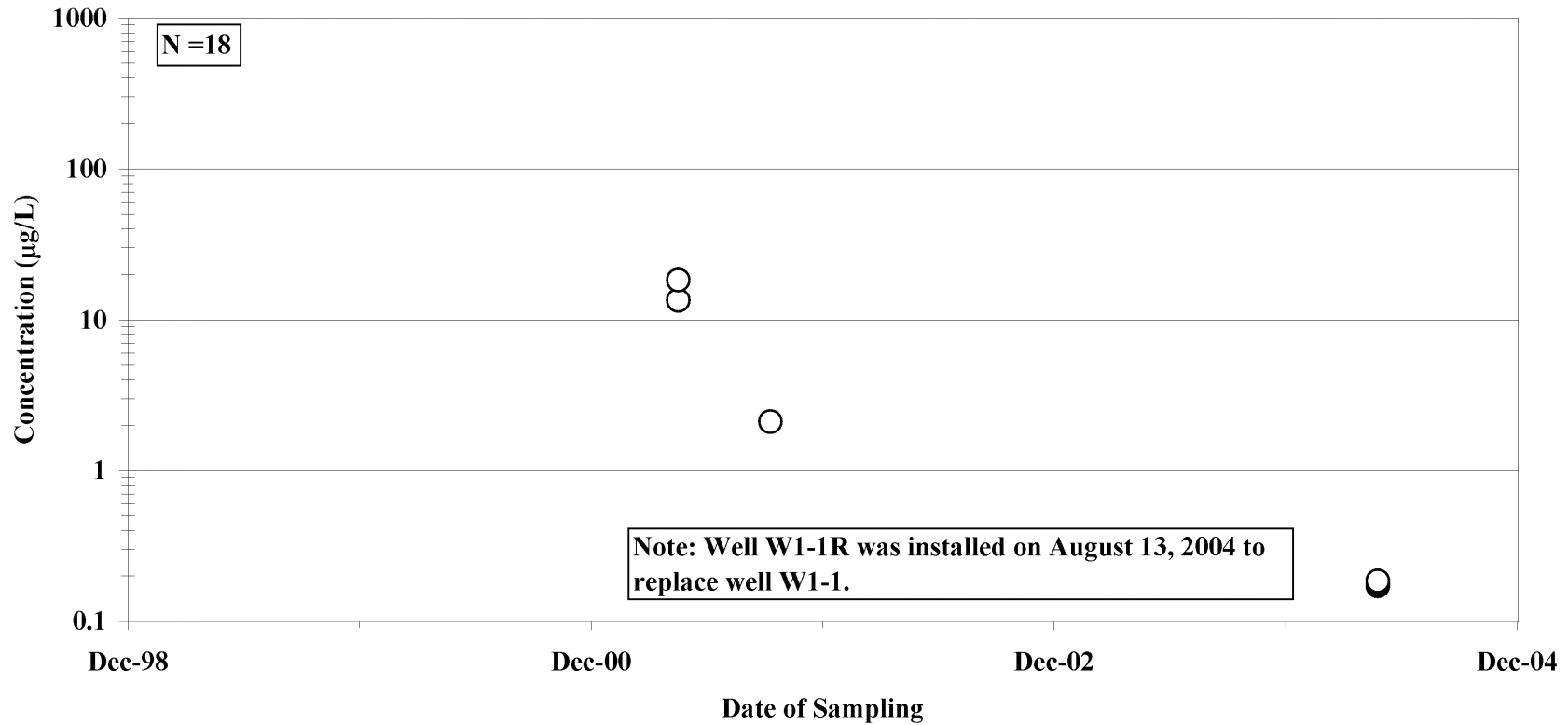


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-28

**DISSOLVED CADMIUM CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-1 / W1-1R
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

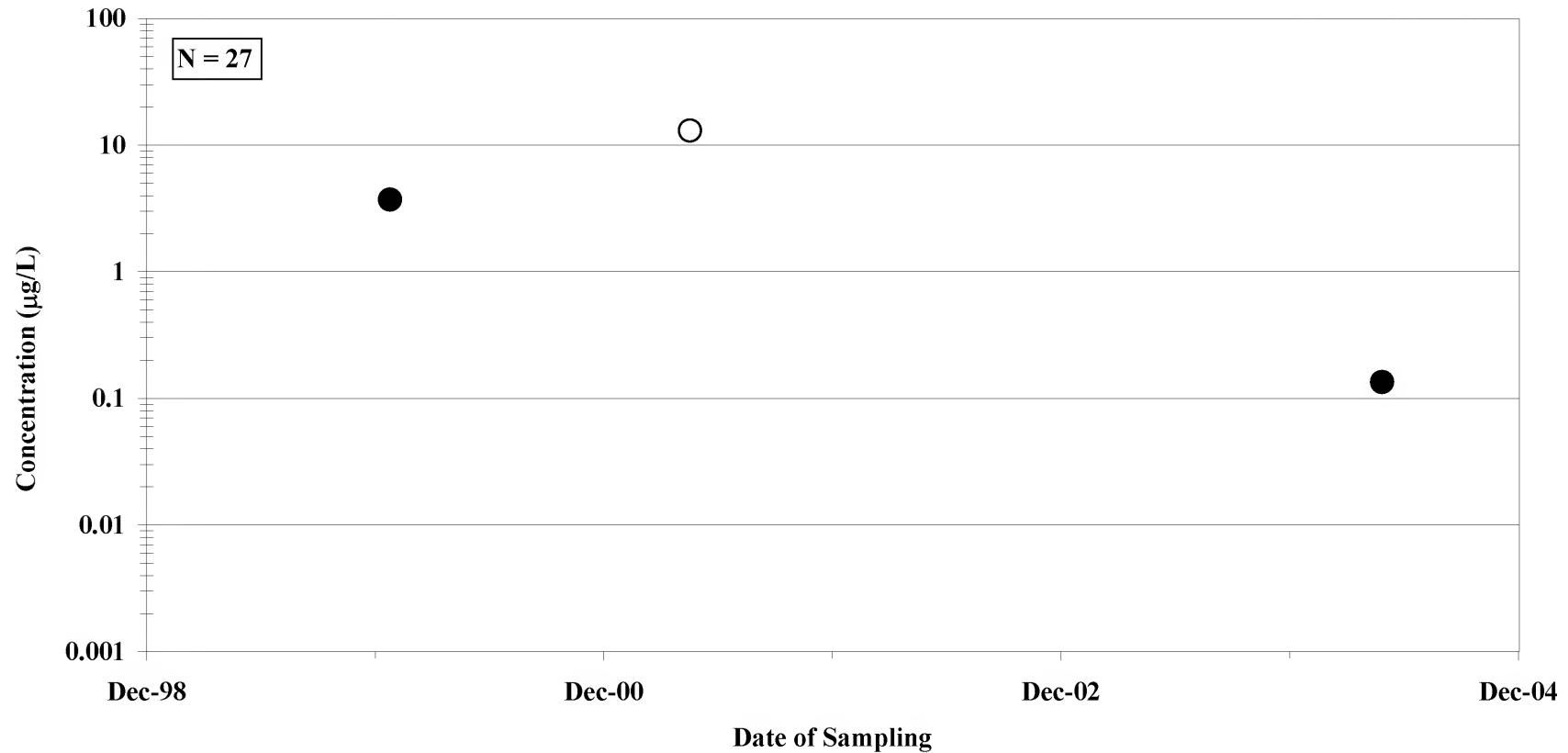


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-29

**DISSOLVED CADMIUM CONCENTRATIONS IN BACKGROUND MONITORING WELL W1-8
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

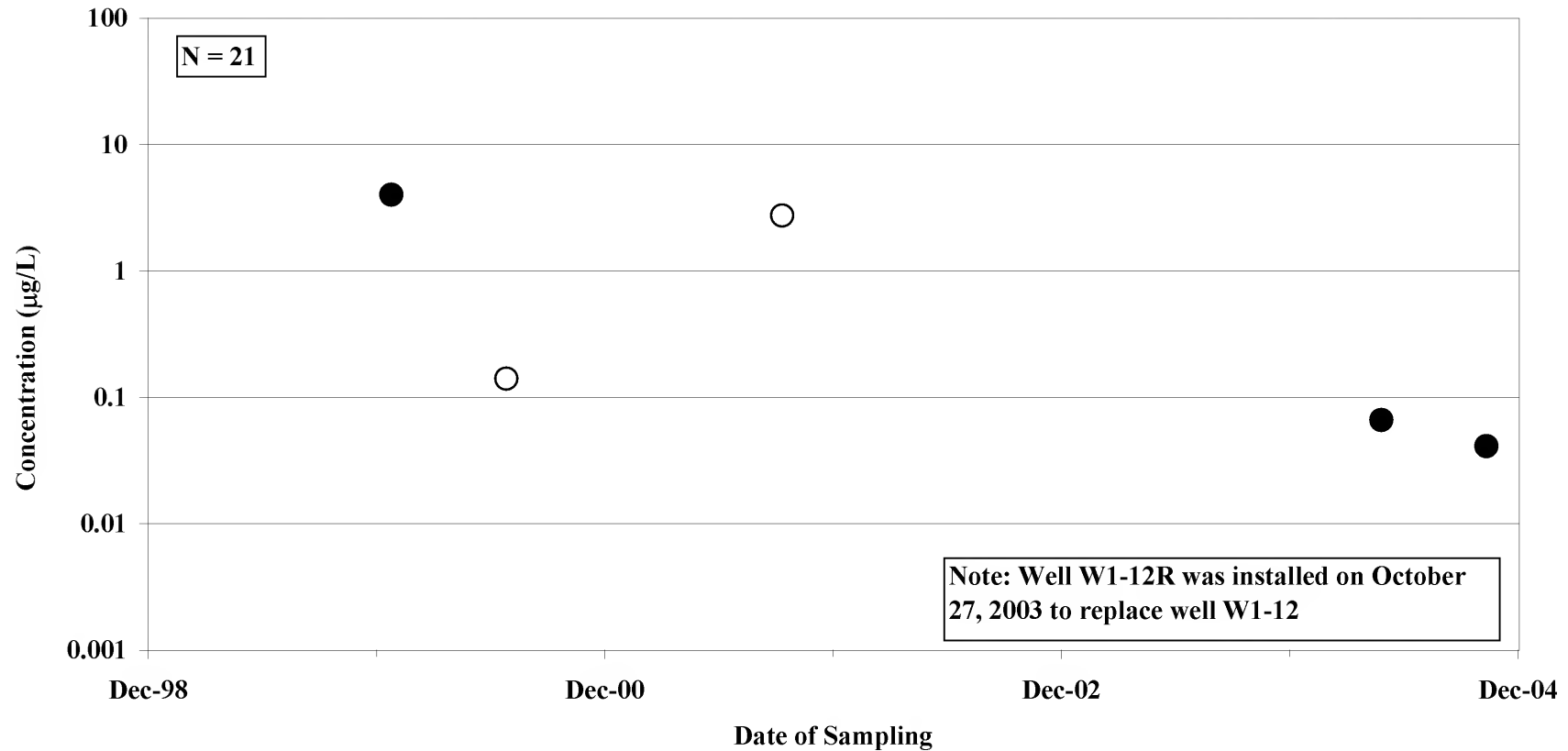


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-30

**DISSOLVED CADMIUM CONCENTRATIONS IN BACKGROUND MONITORING WELL W1-12 / W1-12R
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

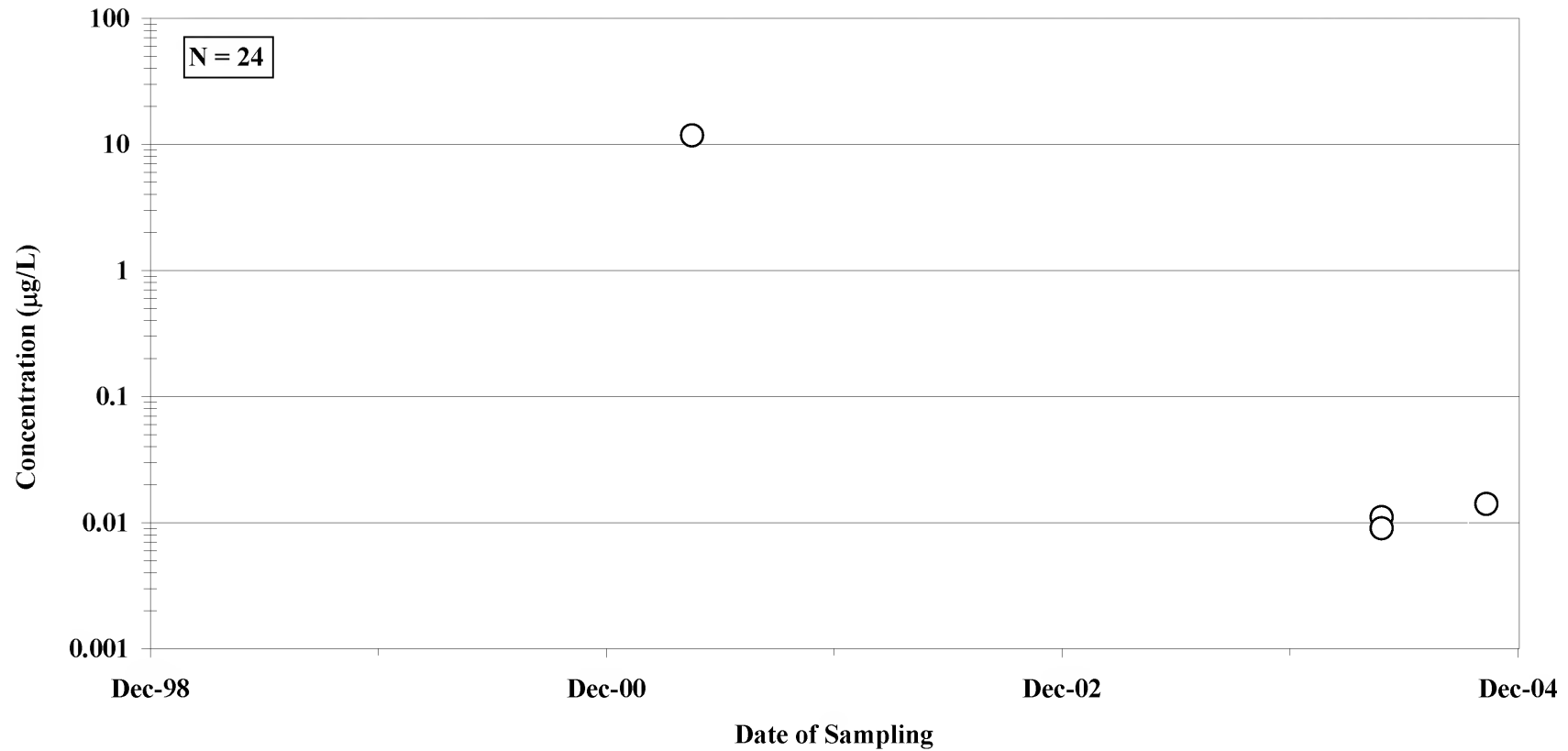


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-31

**DISSOLVED CADMIUM CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-14
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

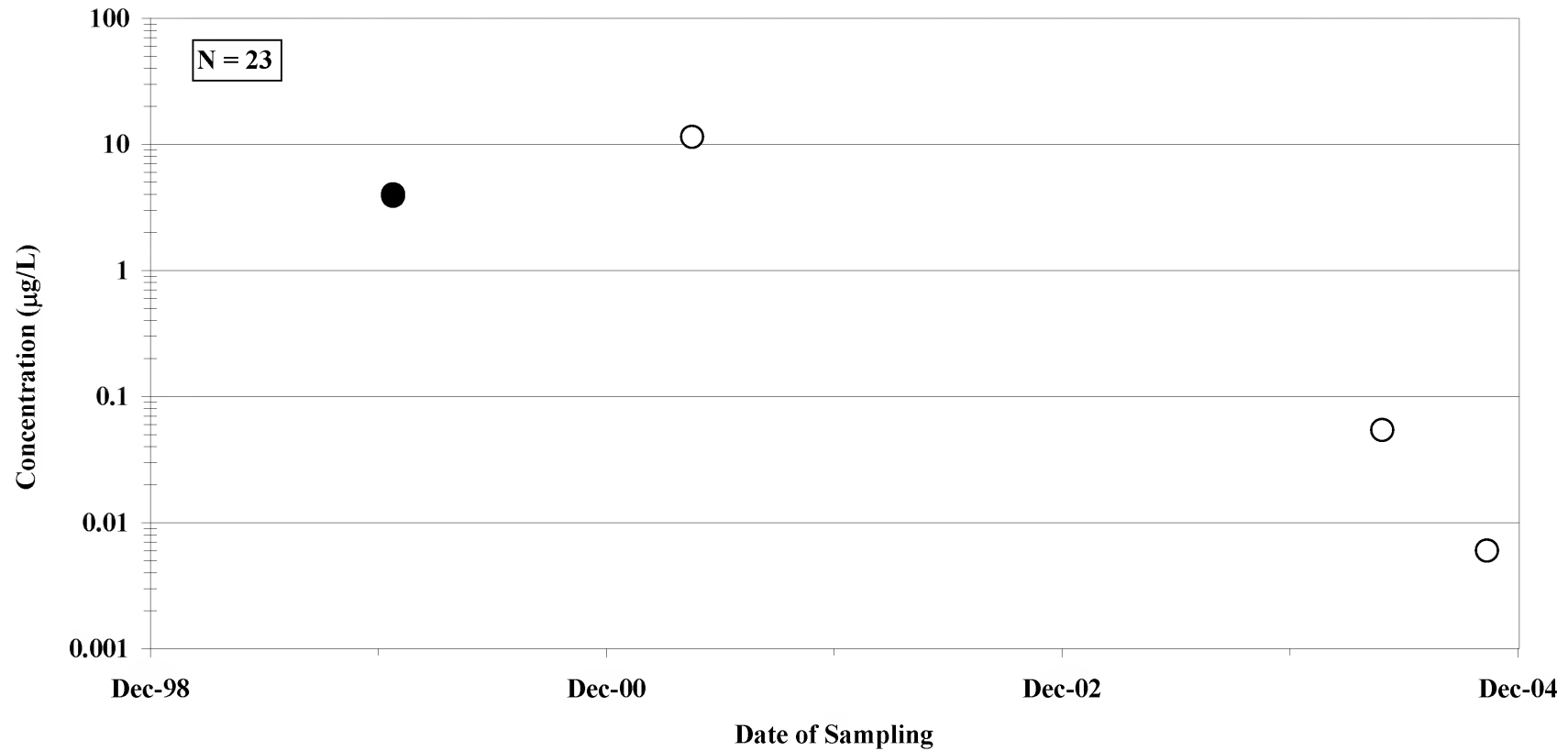


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-32

**DISSOLVED CADMIUM CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-16
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

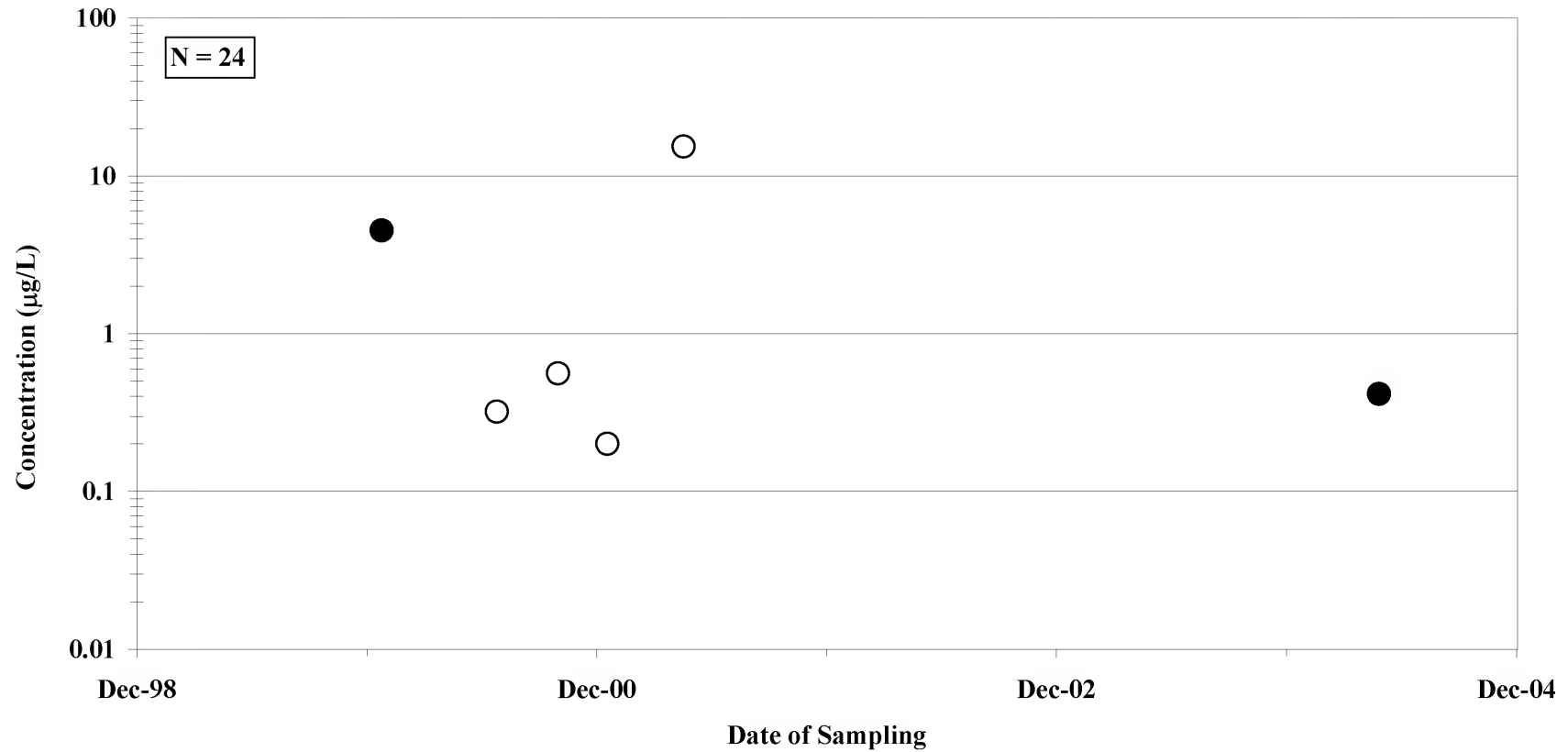


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-33

**DISSOLVED CADMIUM CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-19
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

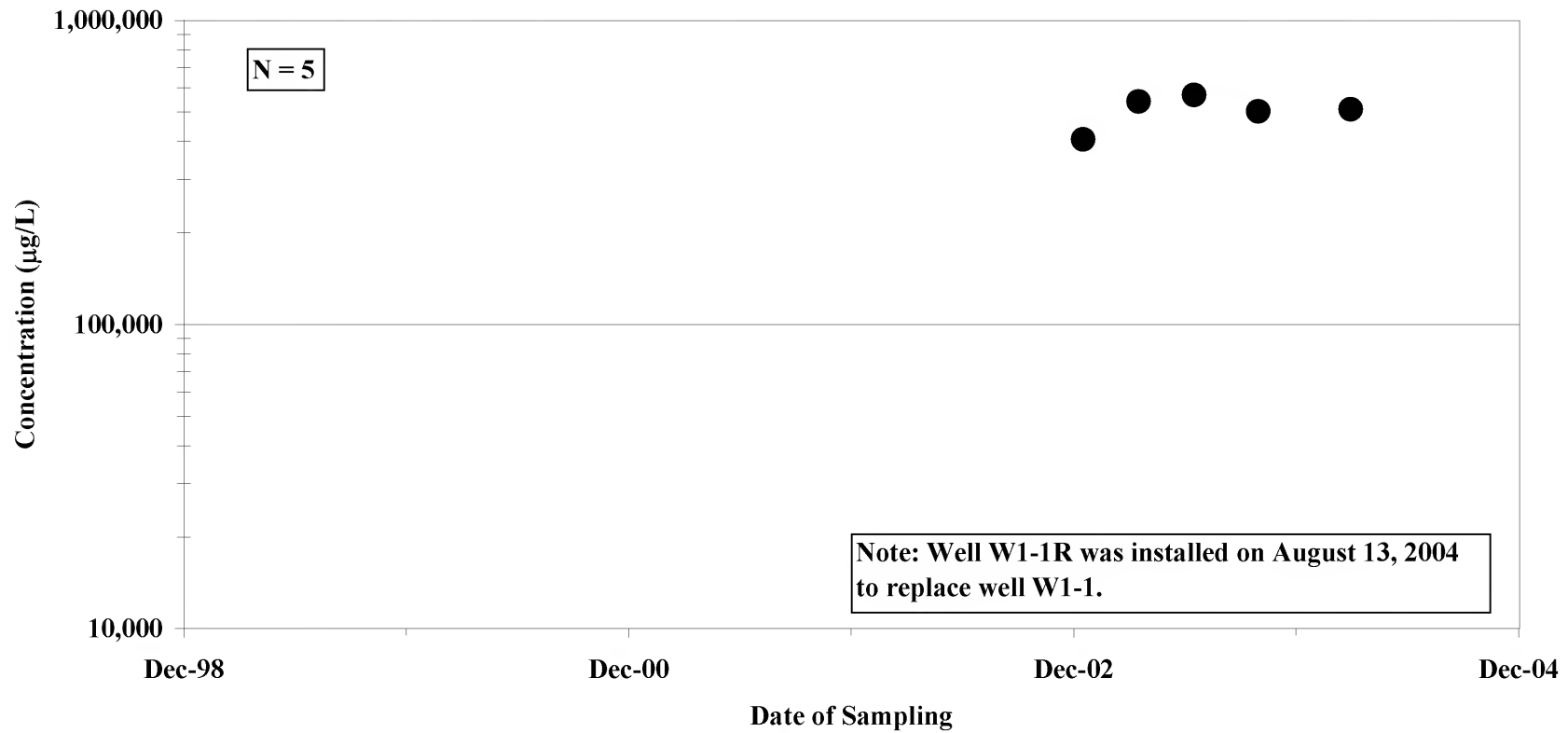


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-34

**DISSOLVED CALCIUM CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-1 / W1-1R
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

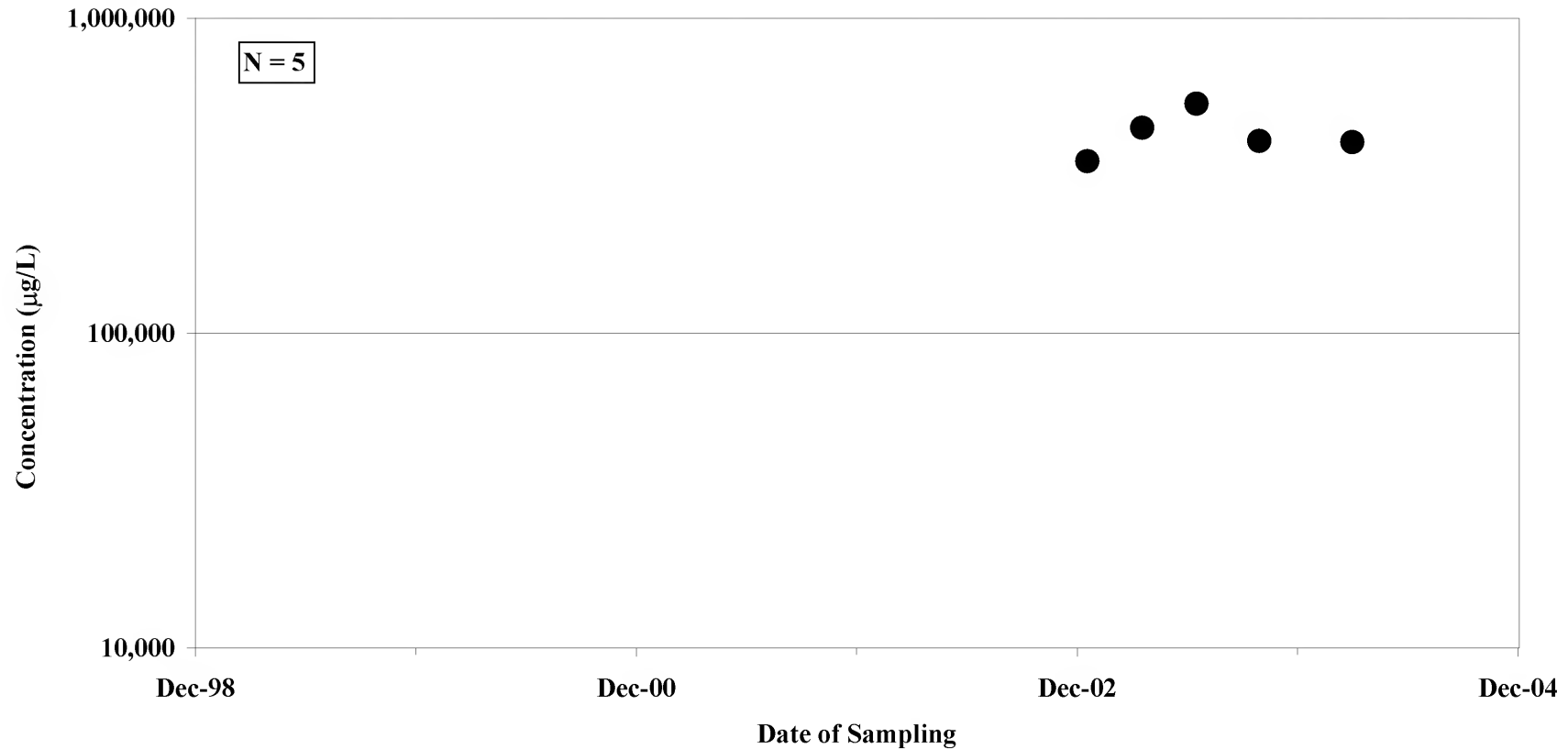


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-35

**DISSOLVED CALCIUM CONCENTRATIONS IN BACKGROUND MONITORING WELL W1-5
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

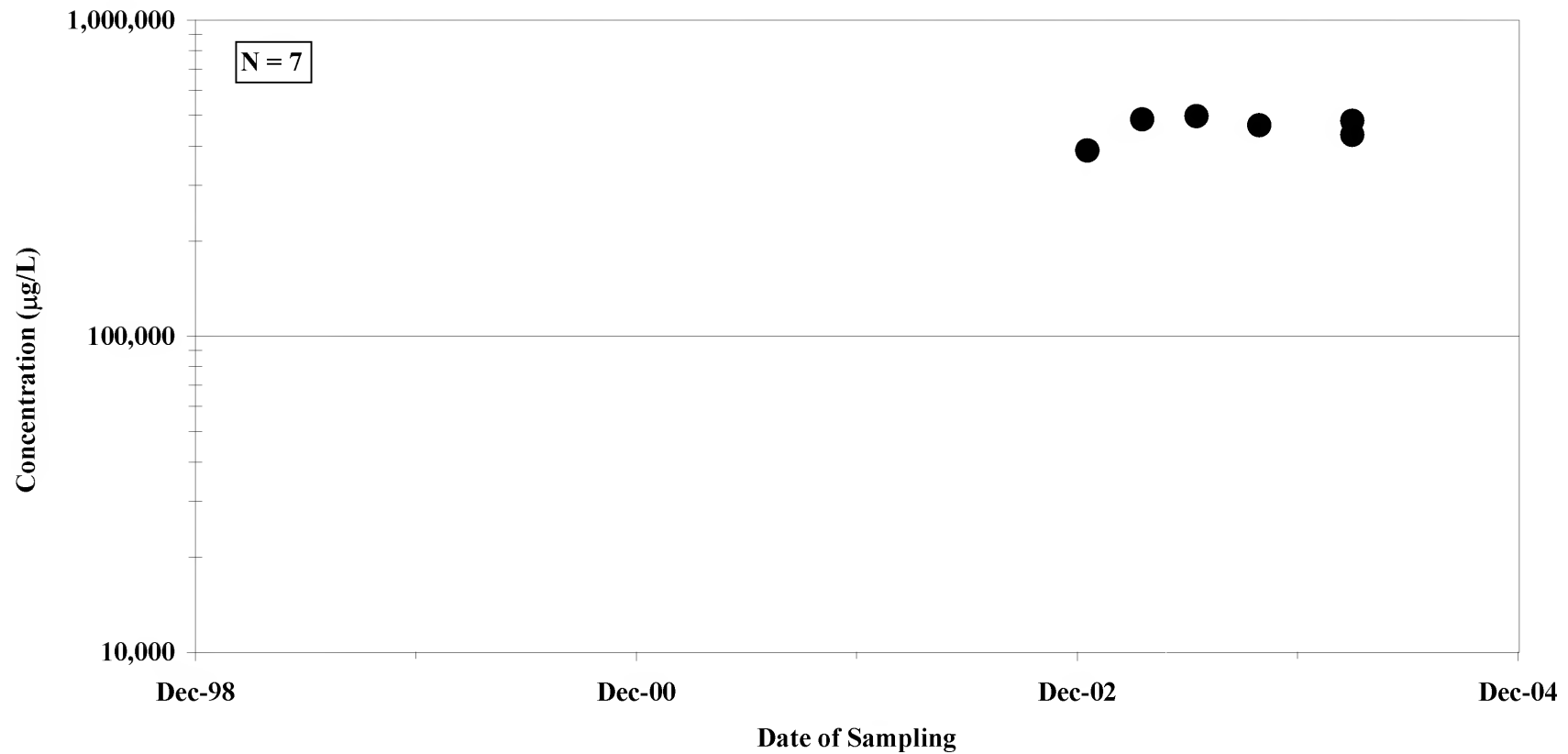


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-36

**DISSOLVED CALCIUM CONCENTRATIONS IN BACKGROUND MONITORING WELL W1-8
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

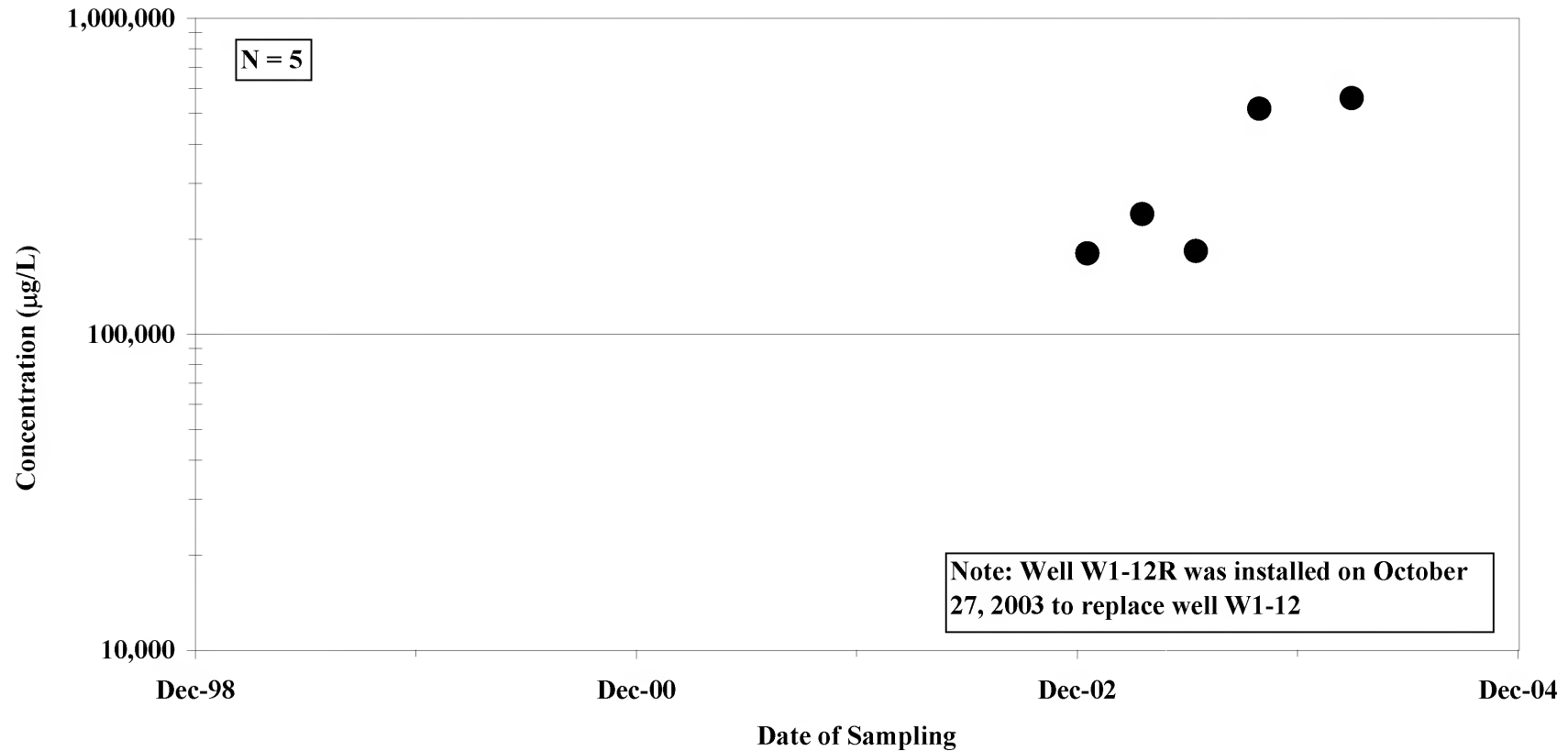


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-37

**DISSOLVED CALCIUM CONCENTRATIONS IN BACKGROUND MONITORING WELL W1-12 / W1-12R
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

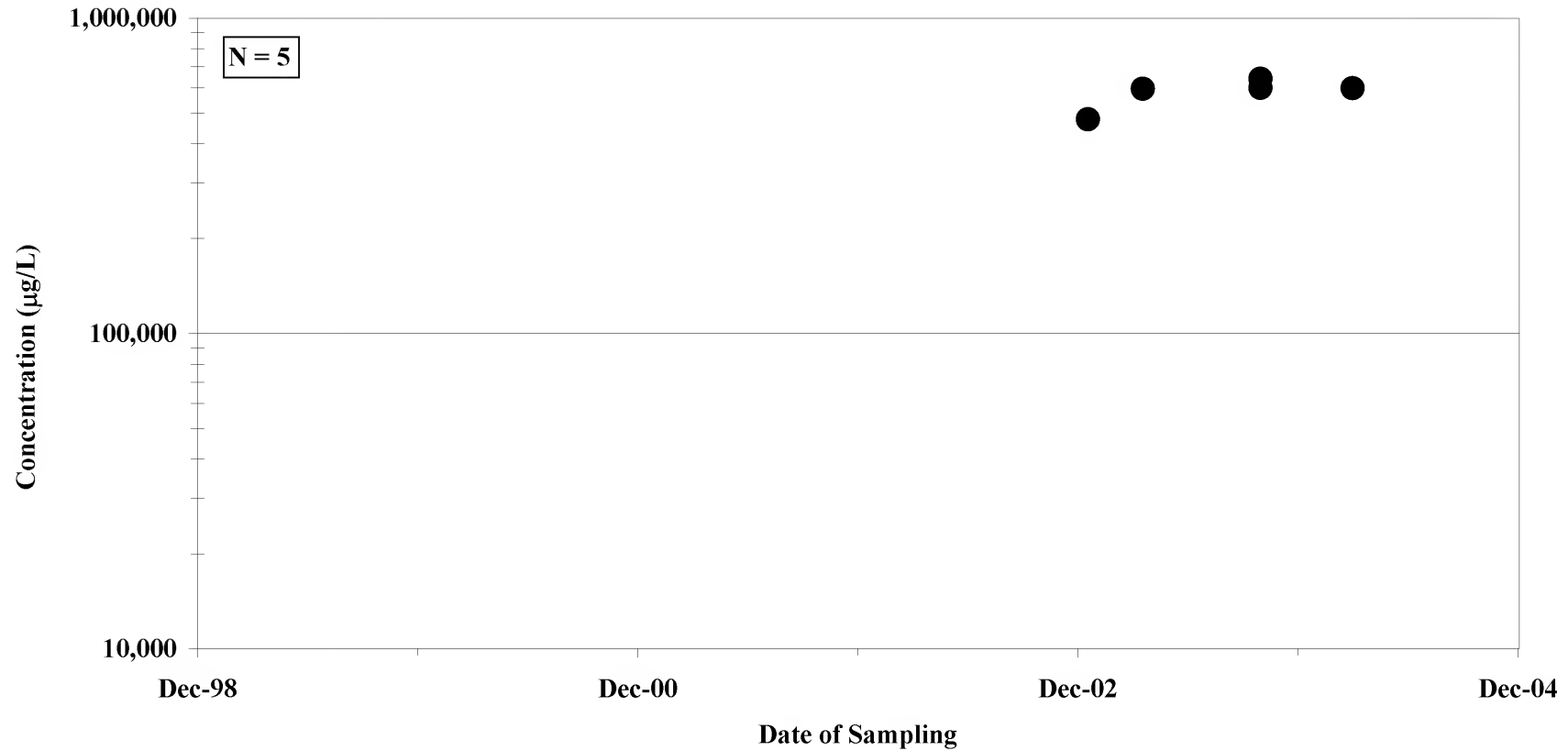


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-38

**DISSOLVED CALCIUM CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-14
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

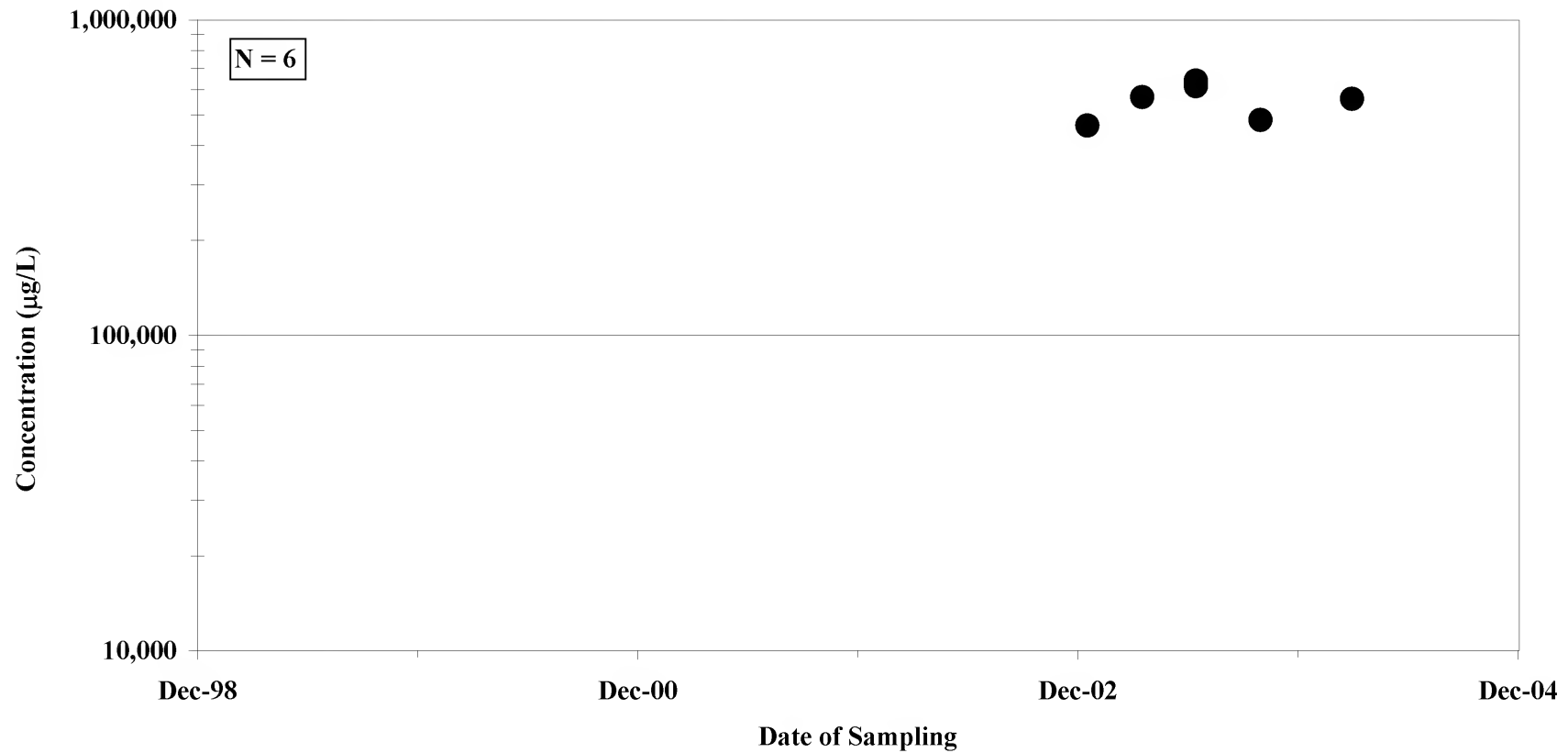


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-39

**DISSOLVED CALCIUM CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-15
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

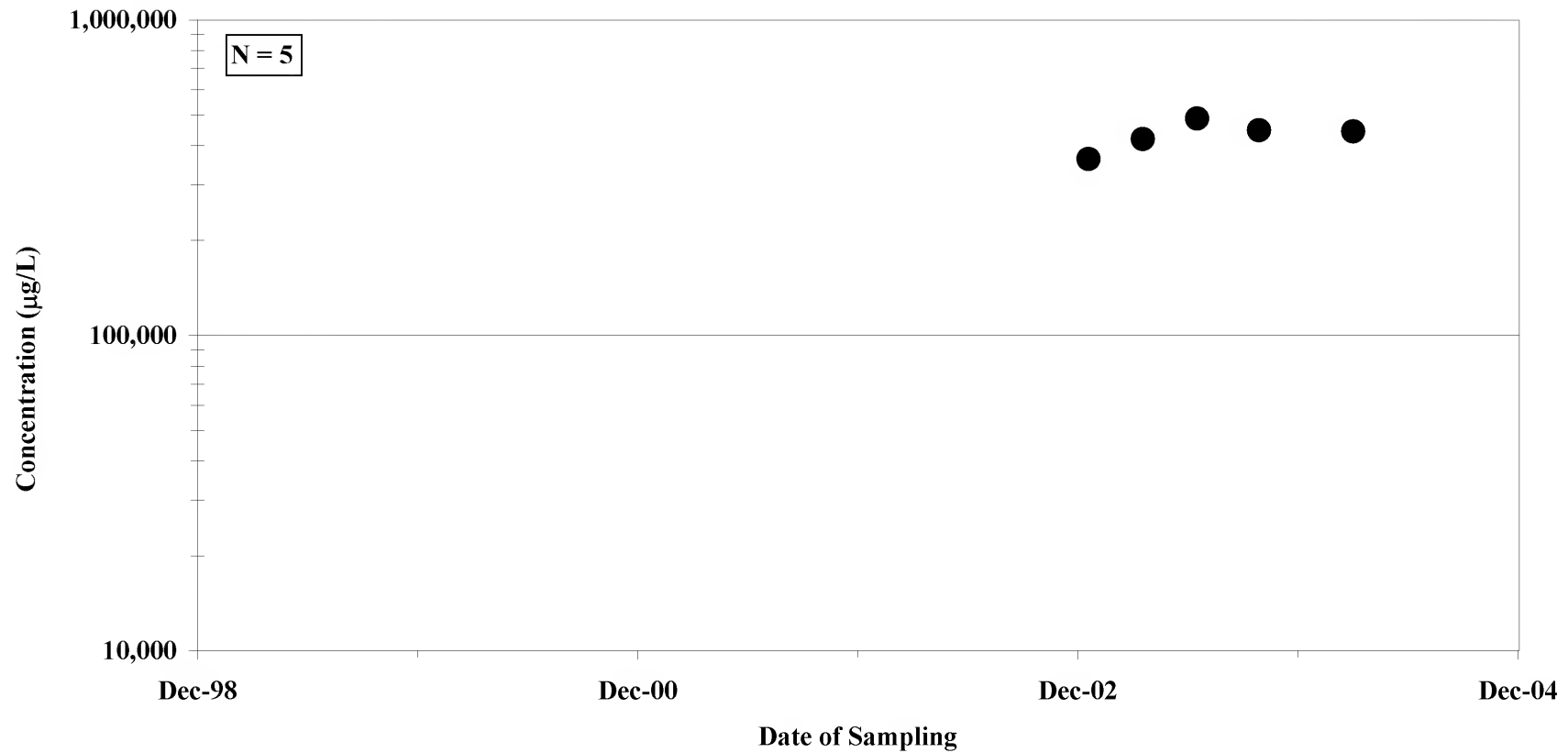


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-40

**DISSOLVED CALCIUM CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-16
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

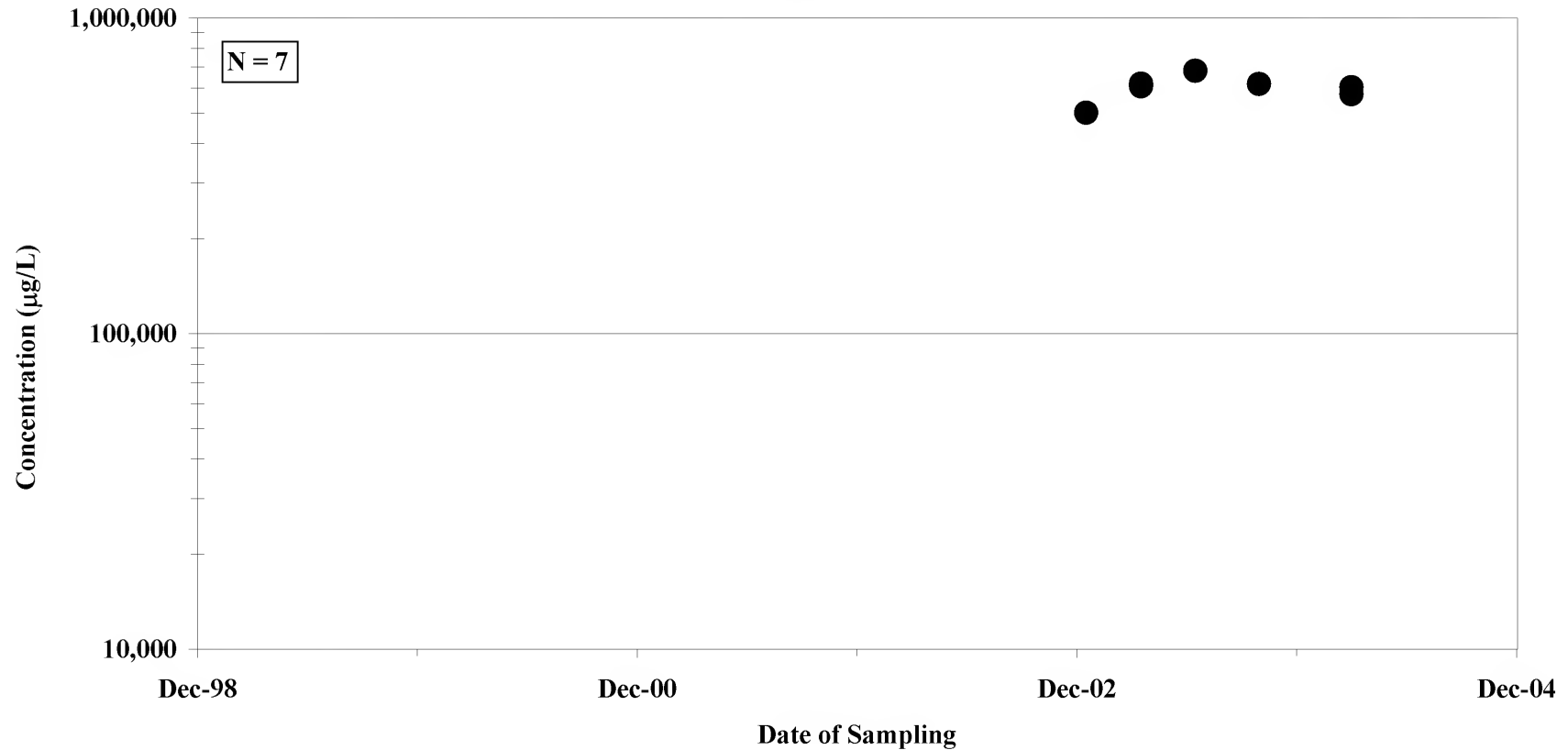


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-41

**DISSOLVED CALCIUM CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-19
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

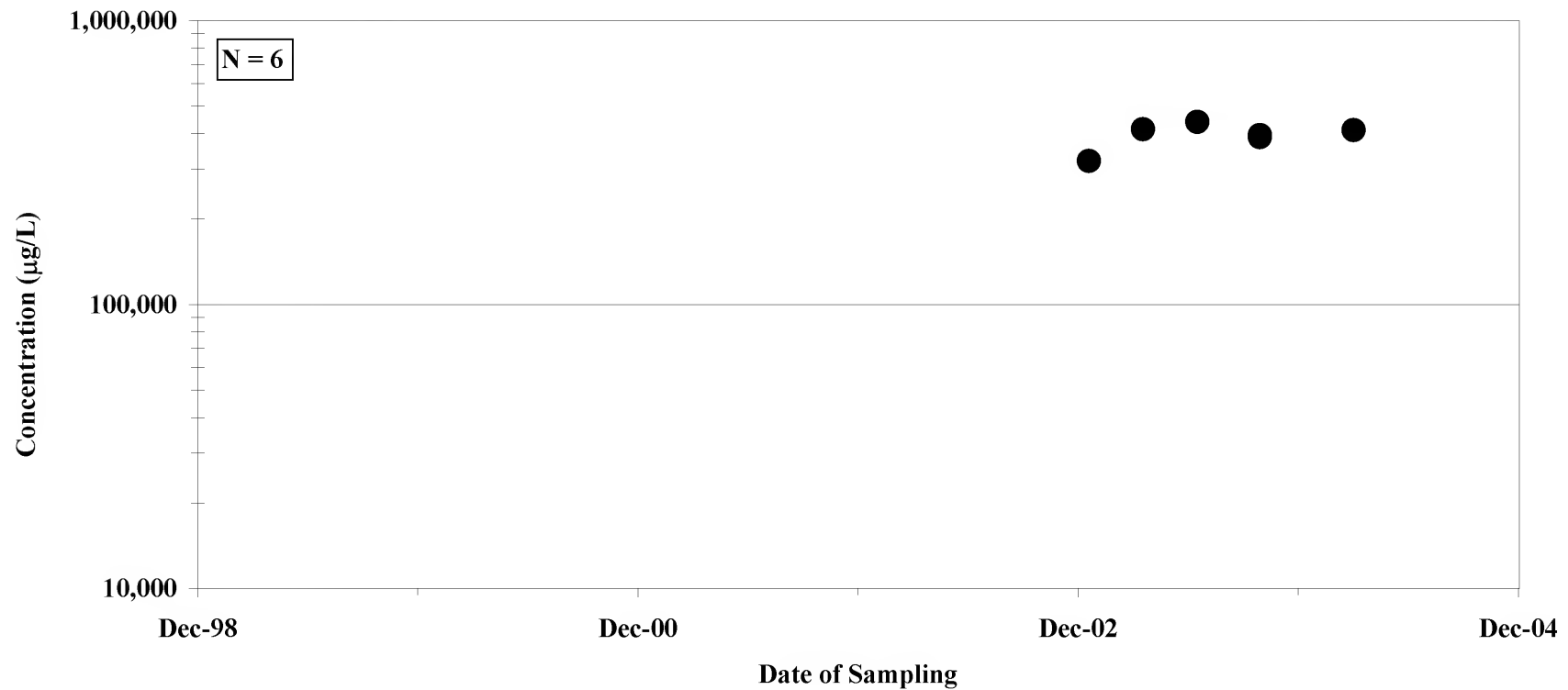


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-42

**DISSOLVED CALCIUM CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-24
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

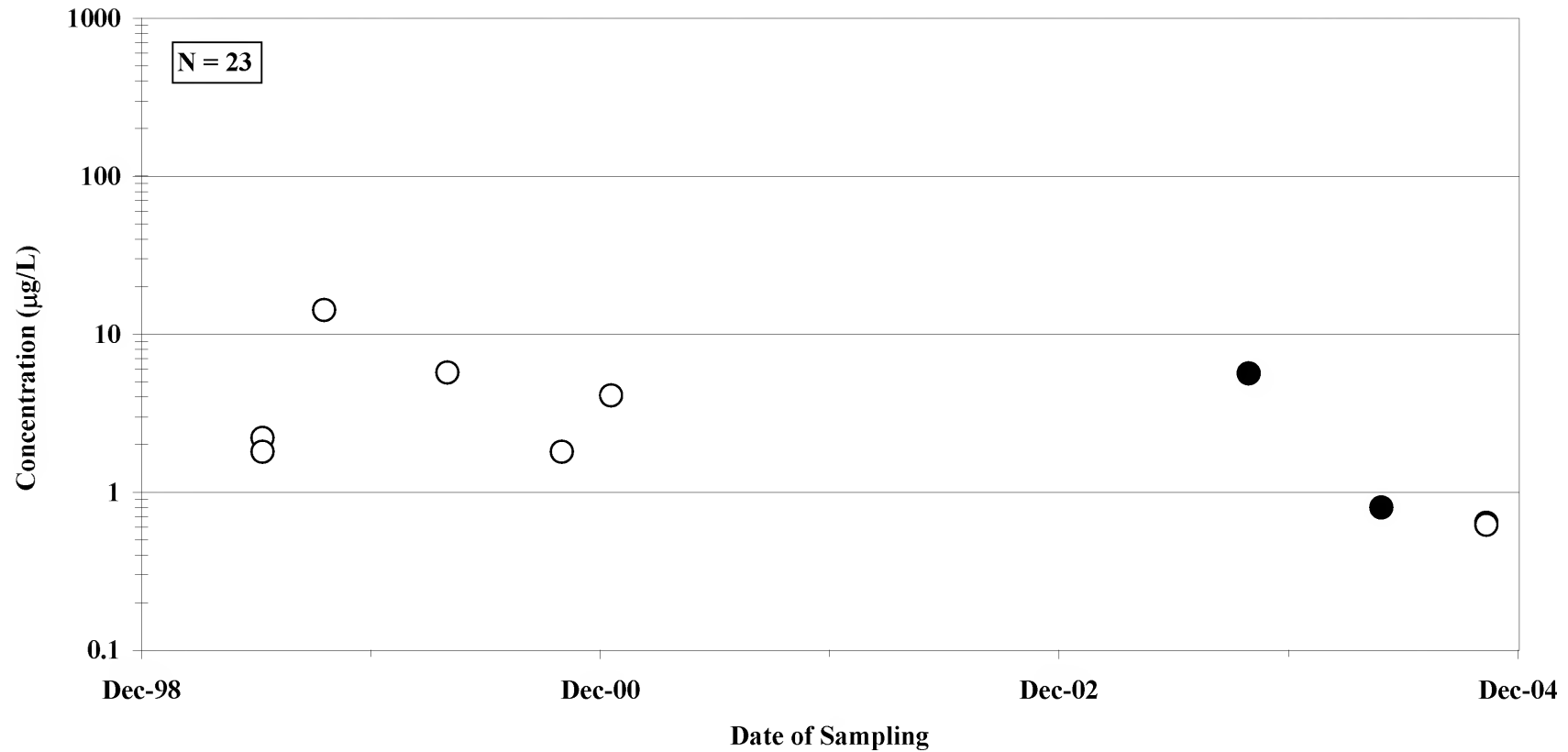


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-43

**DISSOLVED CHROMIUM CONCENTRATIONS IN BACKGROUND MONITORING WELL W1-5
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

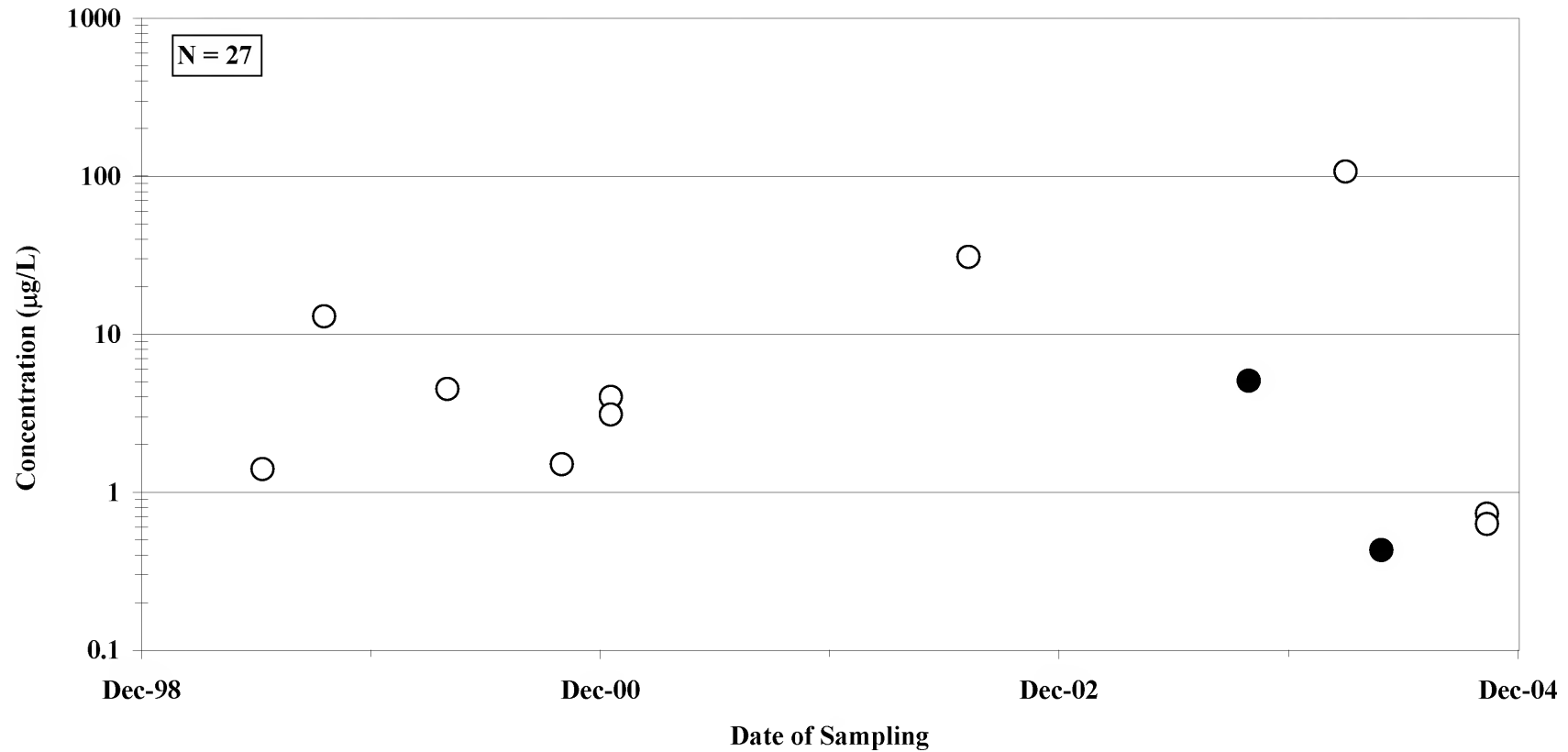


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-44

**DISSOLVED CHROMIUM CONCENTRATIONS IN BACKGROUND MONITORING WELL W1-8
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

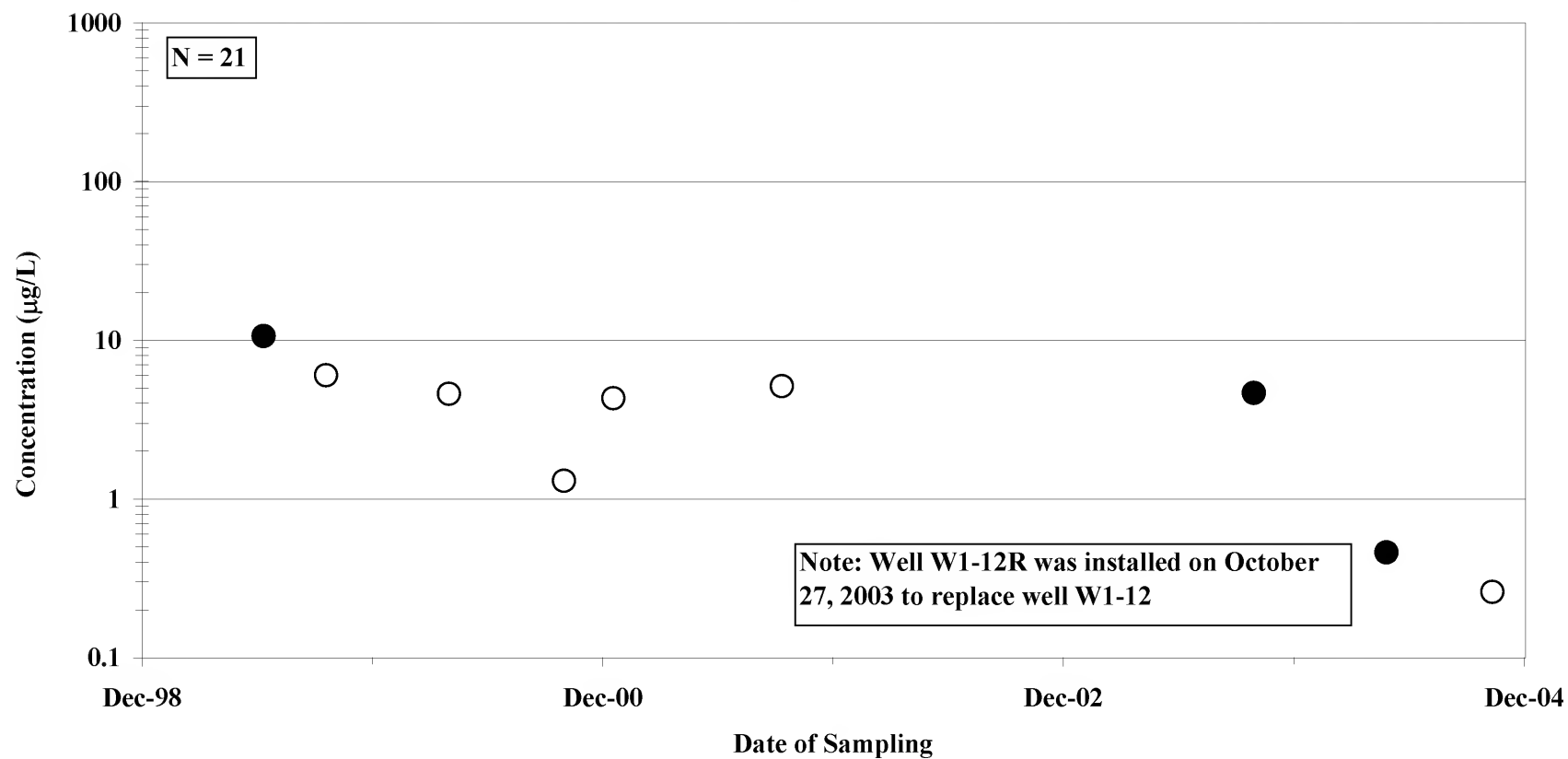


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-45

**DISSOLVED CHROMIUM CONCENTRATIONS IN BACKGROUND MONITORING WELL W1-12 / W1-12R
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

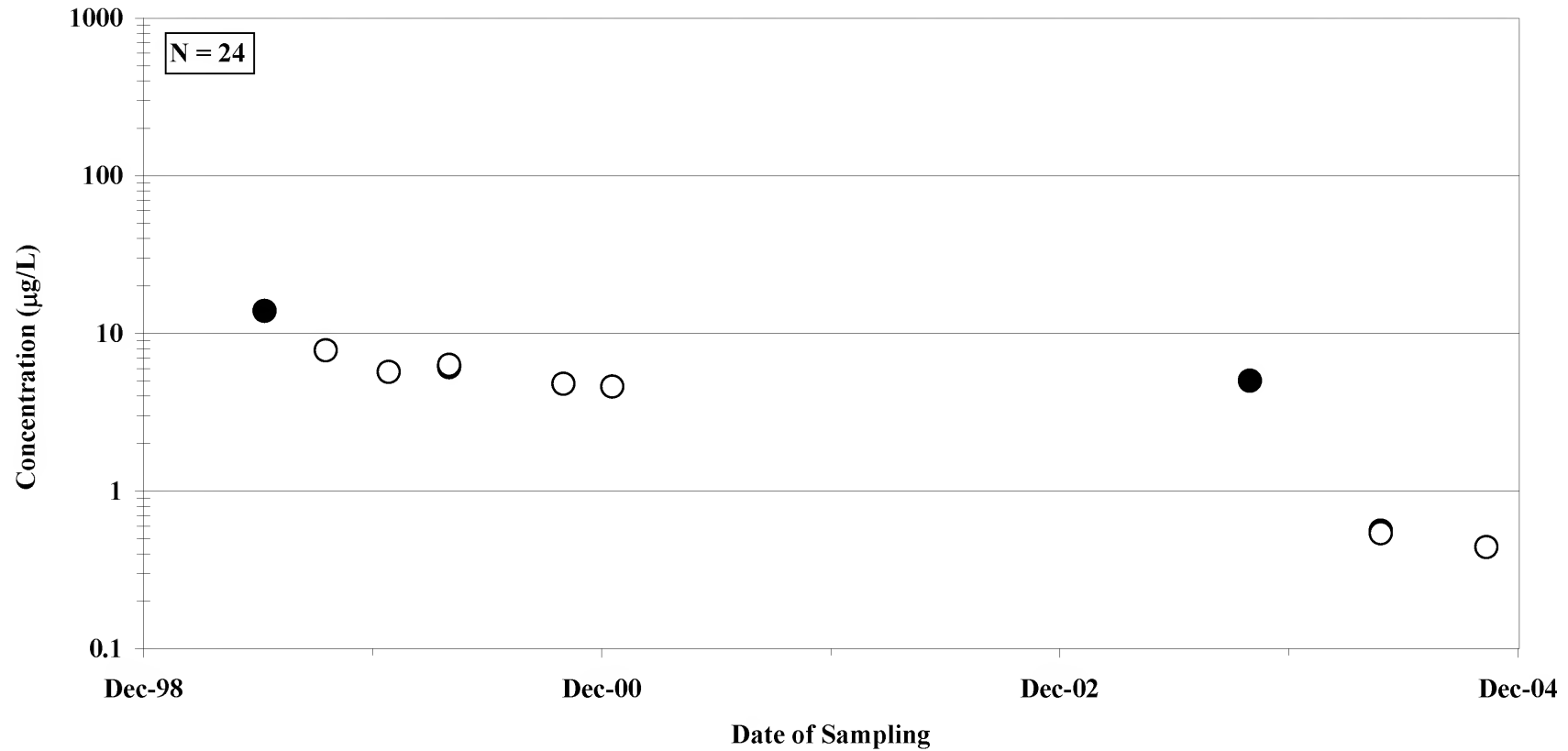


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-46

**DISSOLVED CHROMIUM CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-14
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

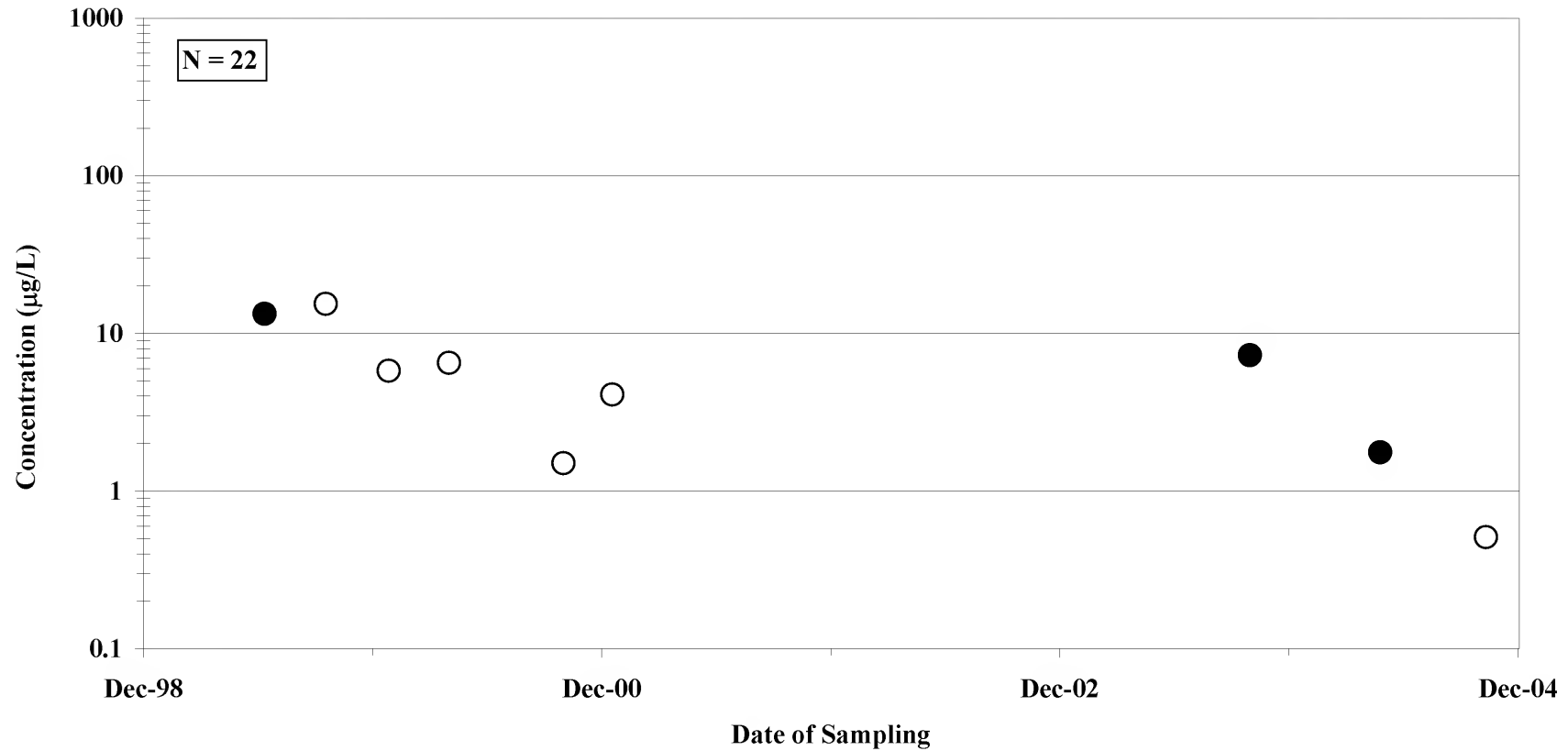


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-47

**DISSOLVED CHROMIUM CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-15
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

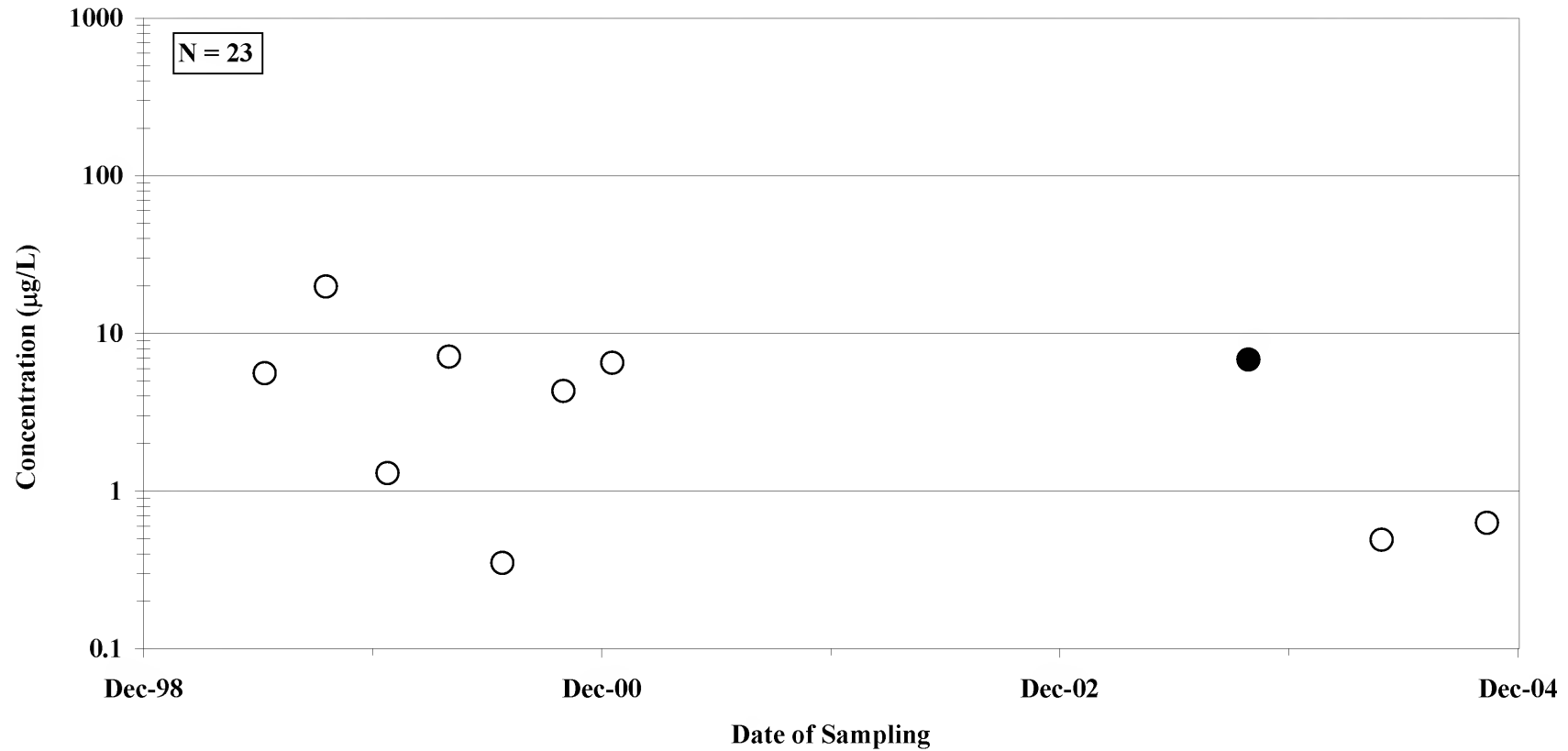


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-48

**DISSOLVED CHROMIUM CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-16
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

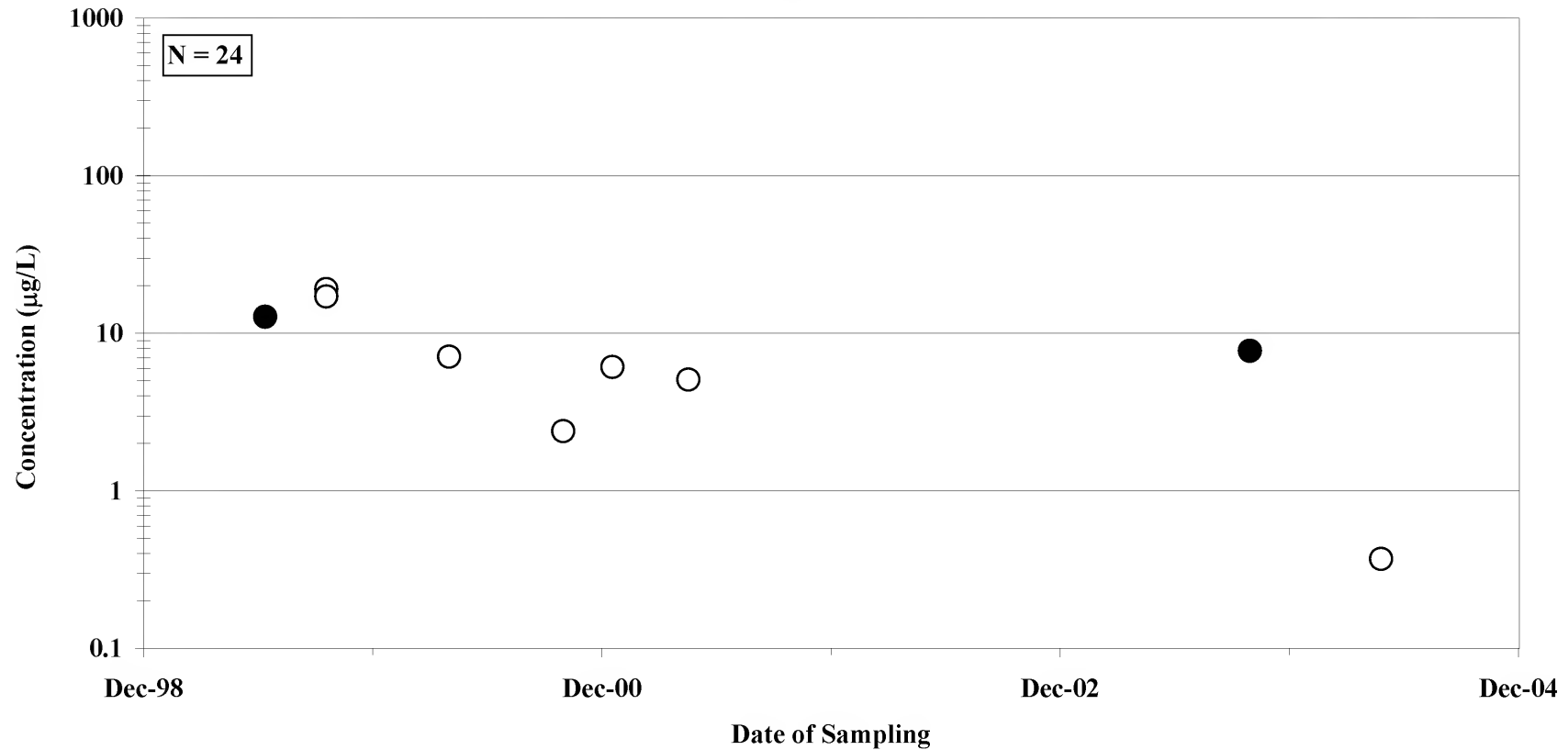


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-49

**DISSOLVED CHROMIUM CONCENTRATIONS IN DOWNGRADIENT MONITORING WELL W1-19
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

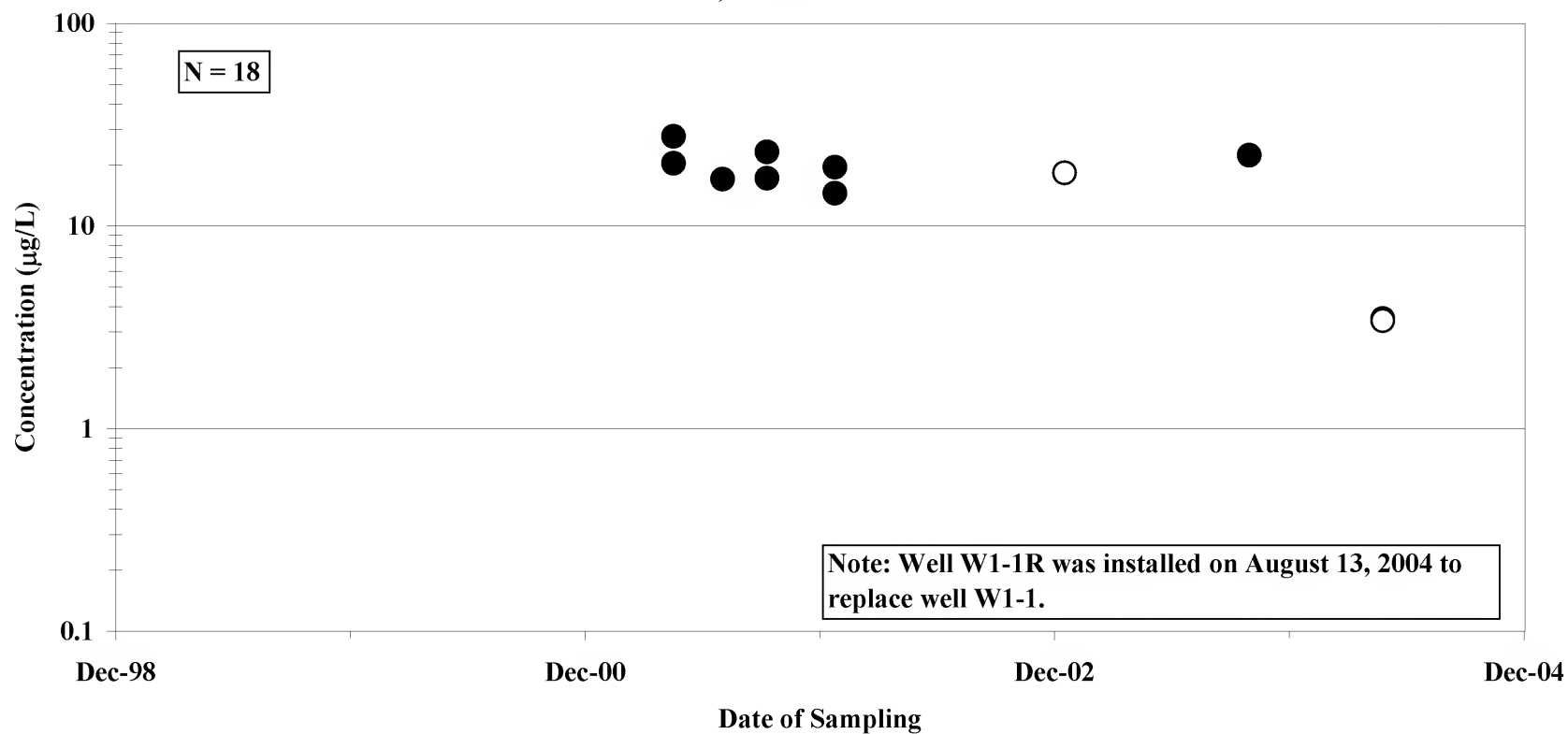


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-50

**DISSOLVED COBALT CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-1 / W1-1R
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

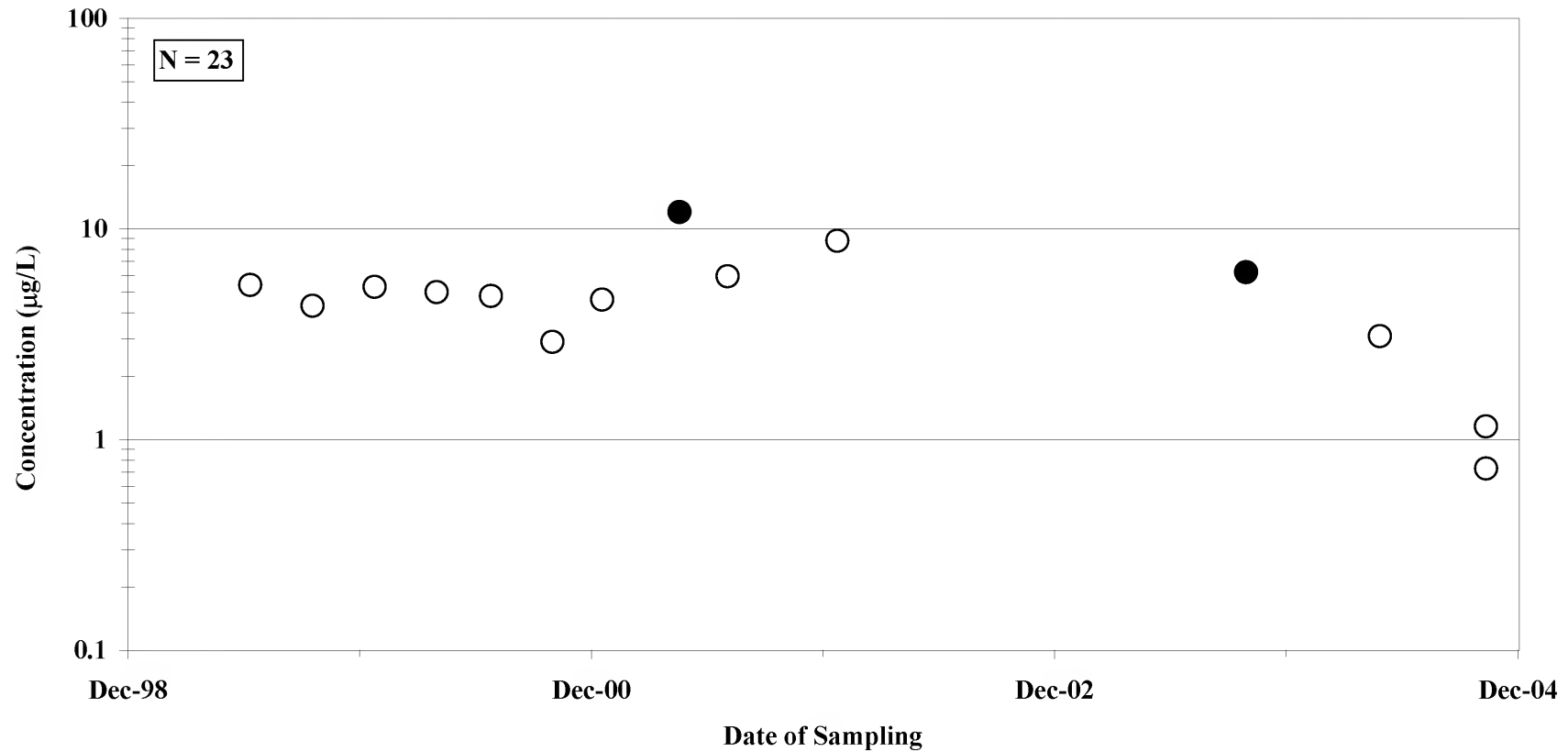


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-51

**DISSOLVED COBALT CONCENTRATIONS IN BACKGROUND MONITORING WELL W1-5
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

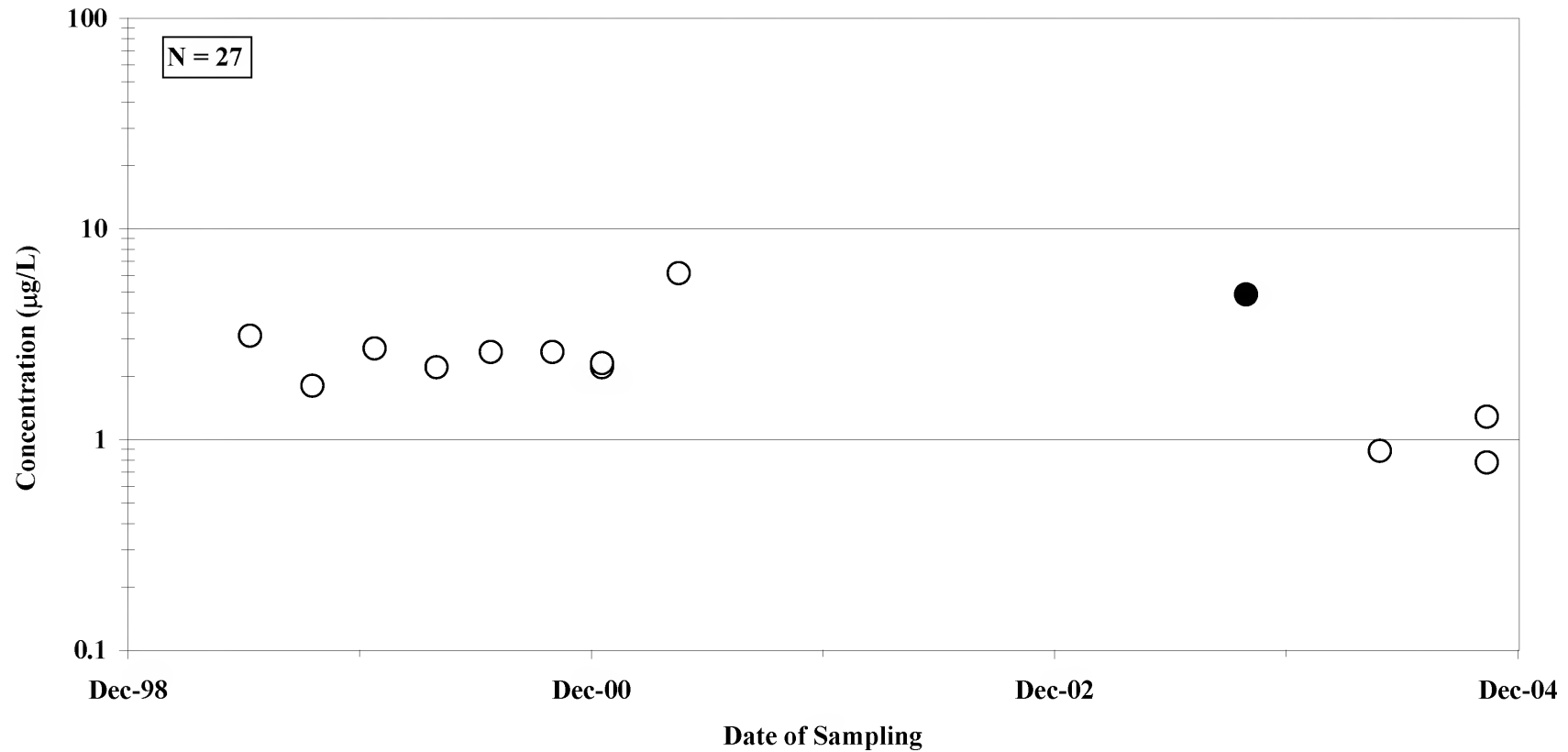


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-52

**DISSOLVED COBALT CONCENTRATIONS IN BACKGROUND MONITORING WELL W1-8
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

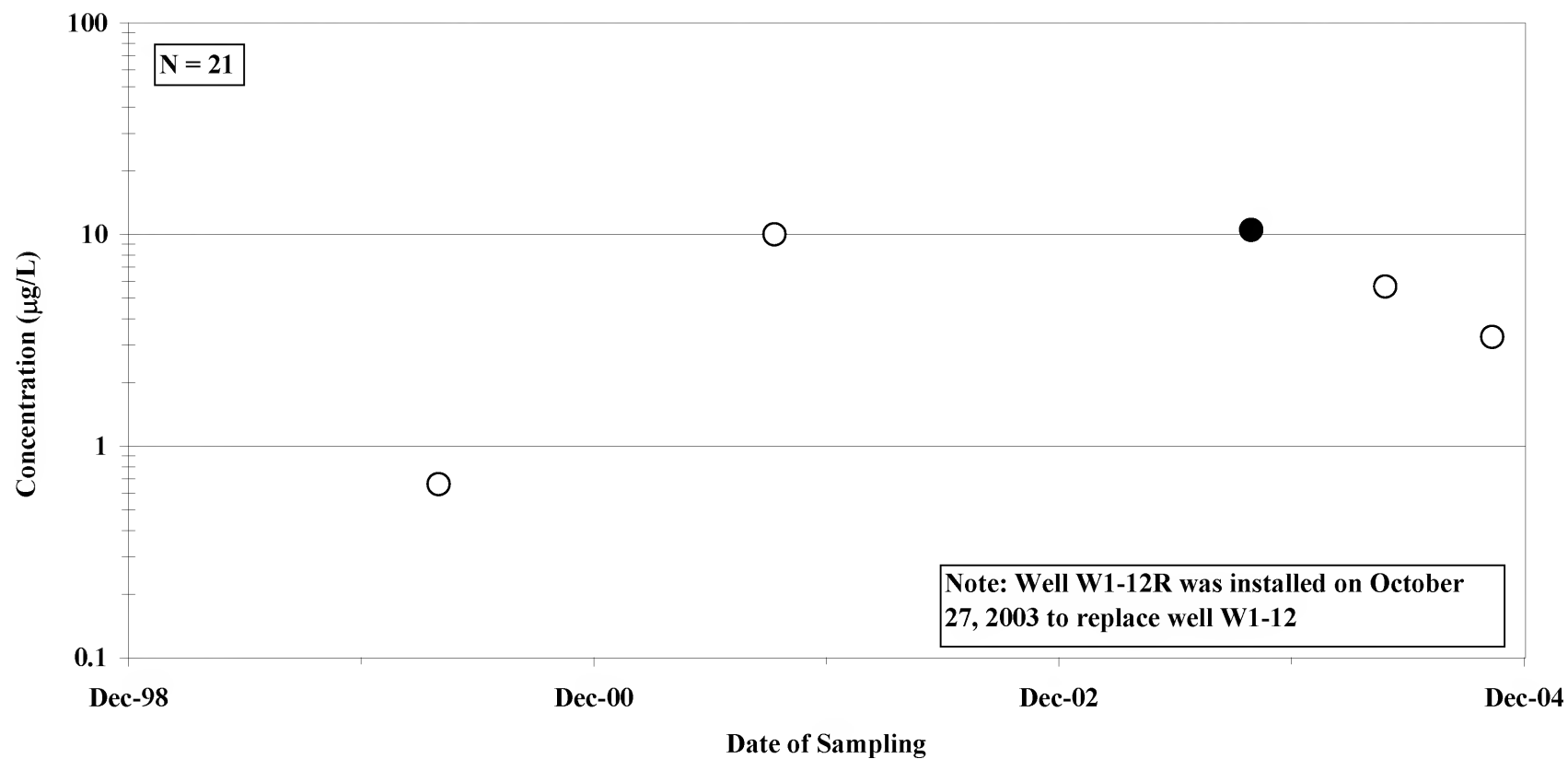


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-53

**DISSOLVED COBALT CONCENTRATIONS IN BACKGROUND MONITORING WELL W1-12 / W1-12R
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

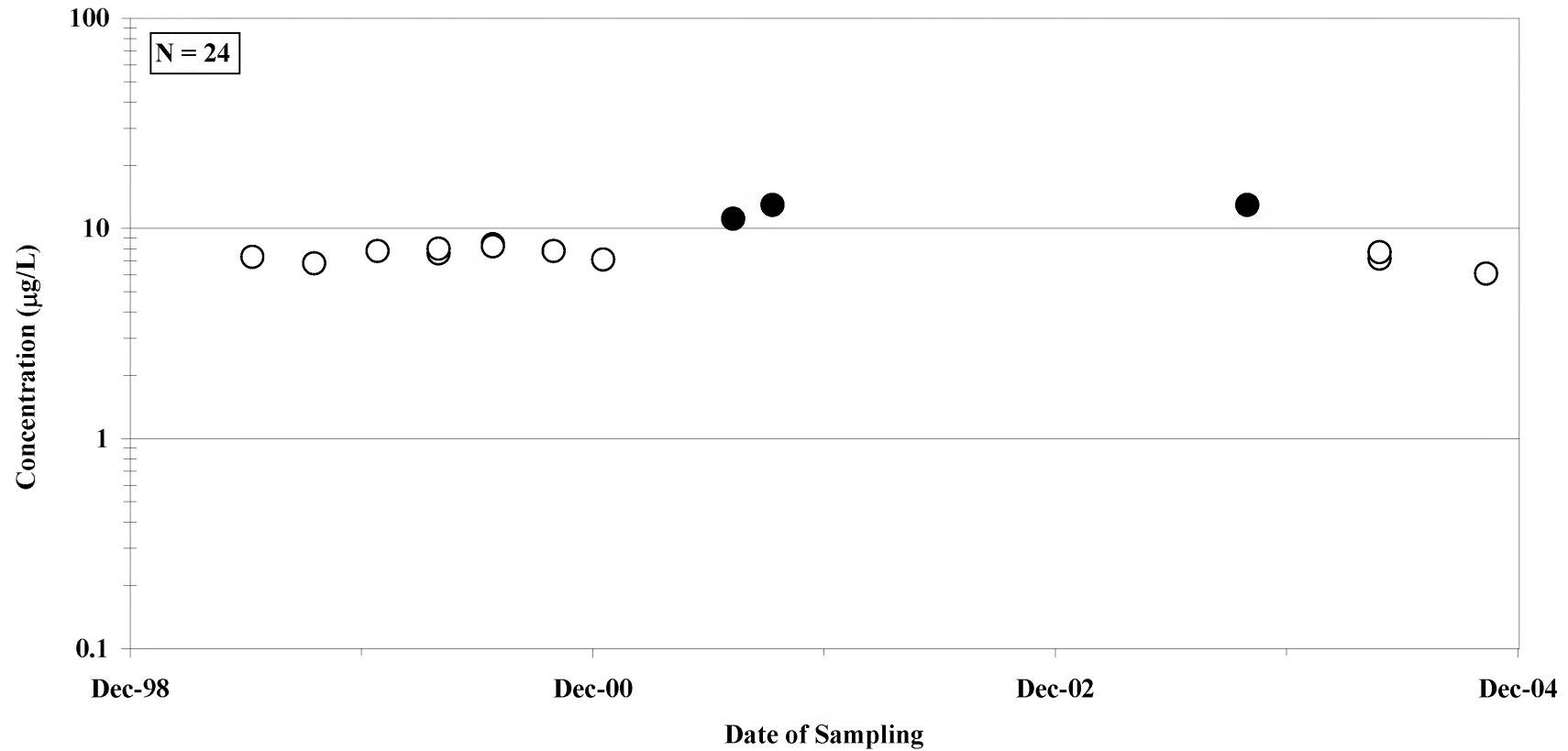


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-54

**DISSOLVED COBALT CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-14
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

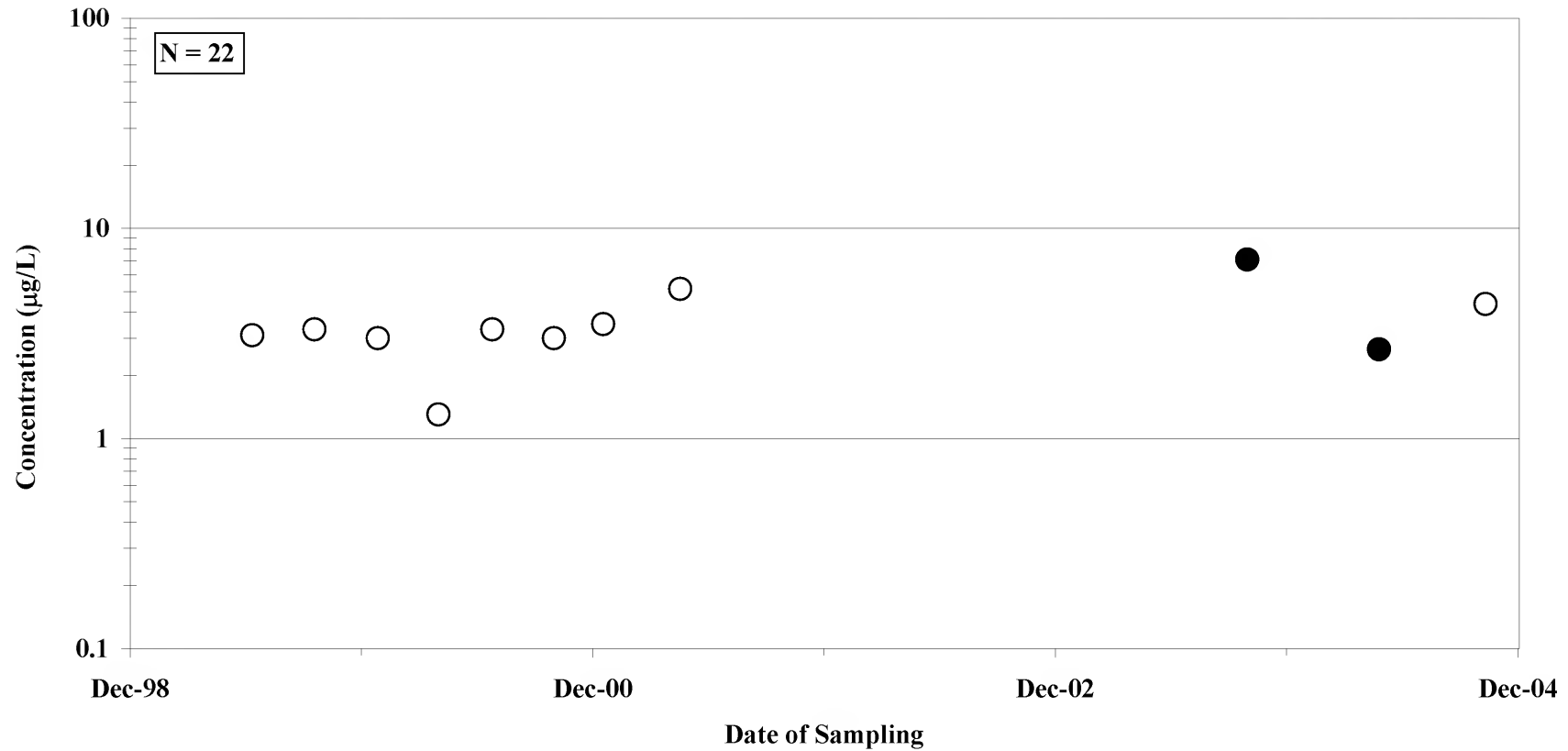


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-55

**DISSOLVED COBALT CONCENTRATIONS IN DOWNGRADIANT MONITORING WELL W1-15
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

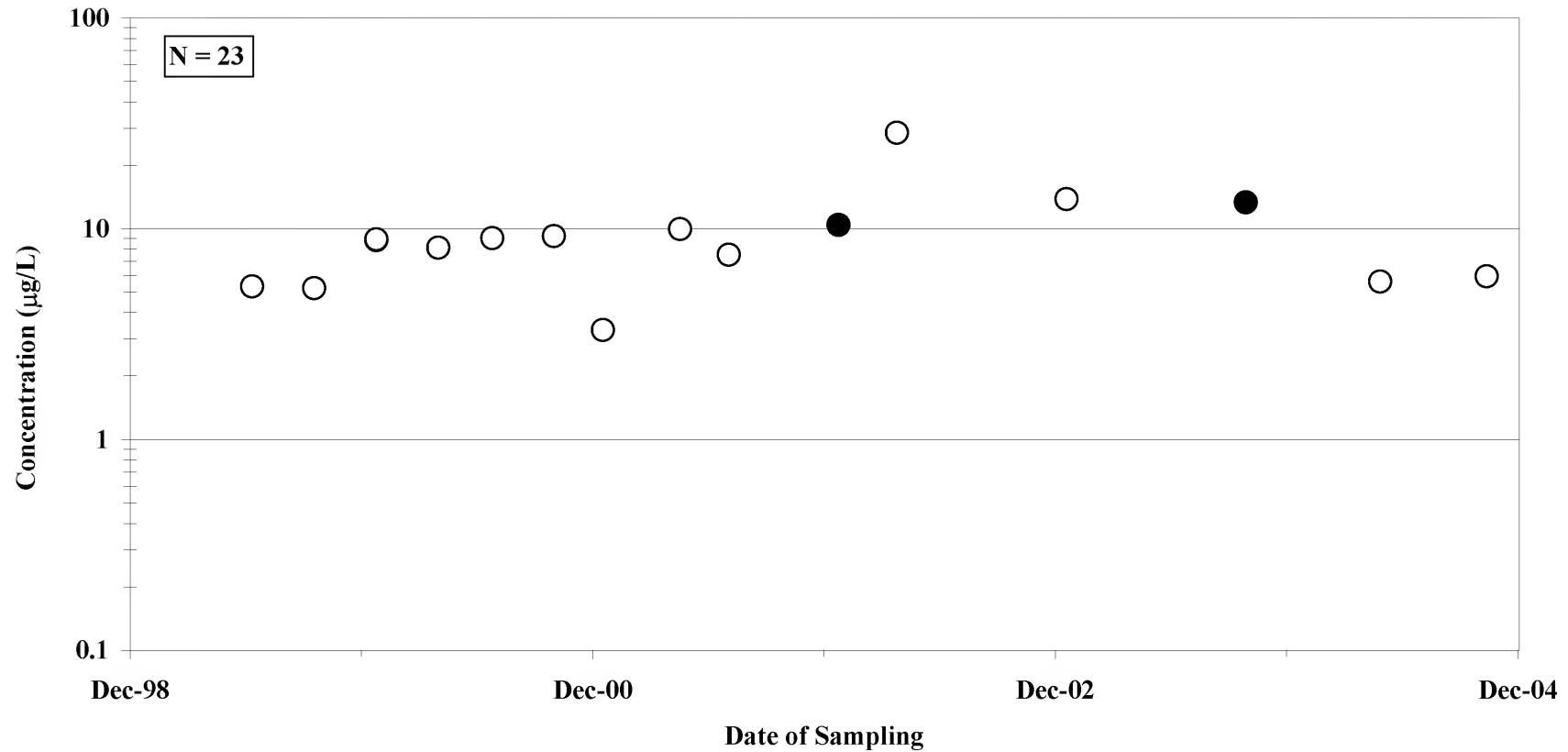


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-56

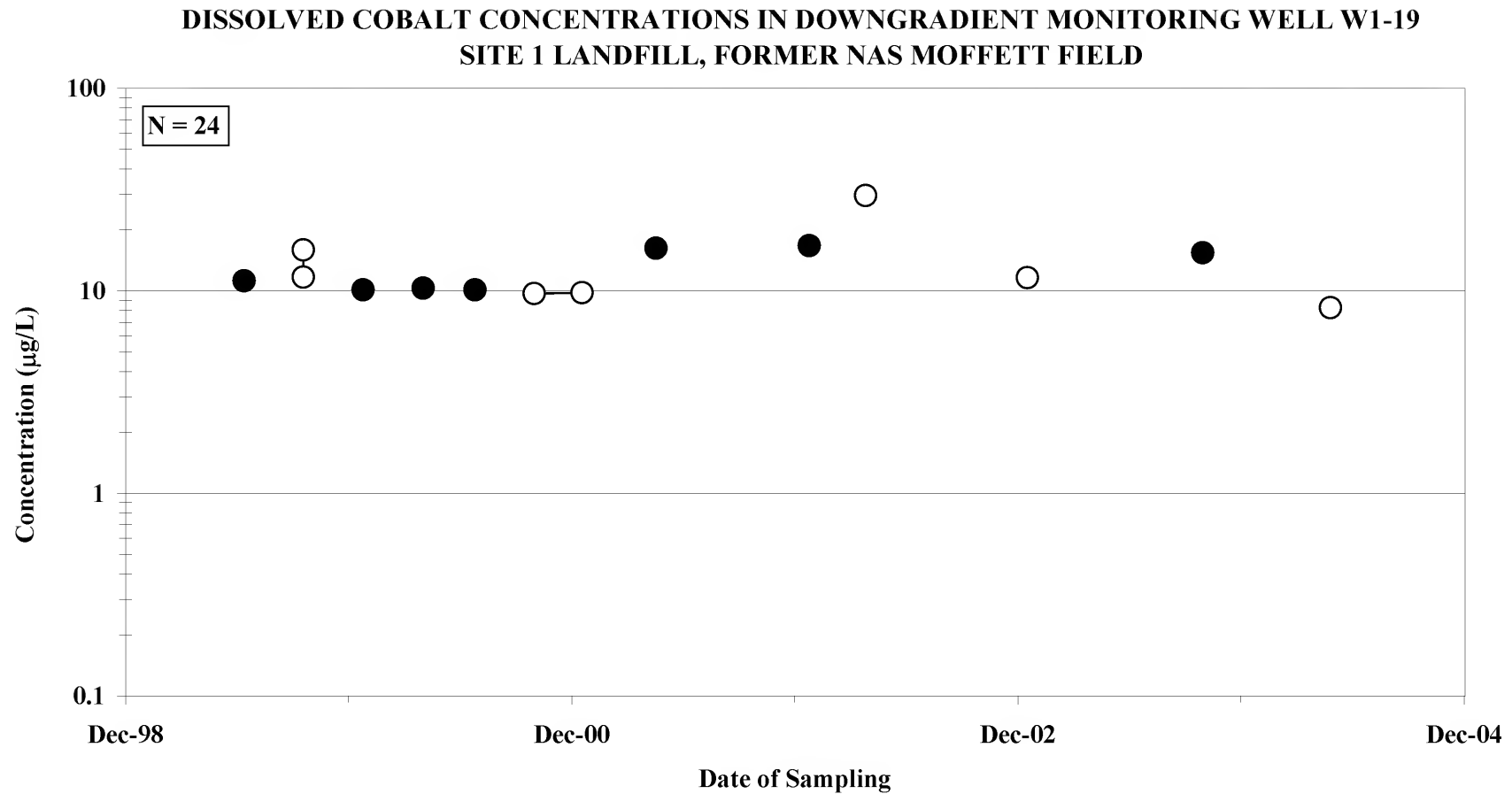
**DISSOLVED COBALT CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-16
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**



Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-57

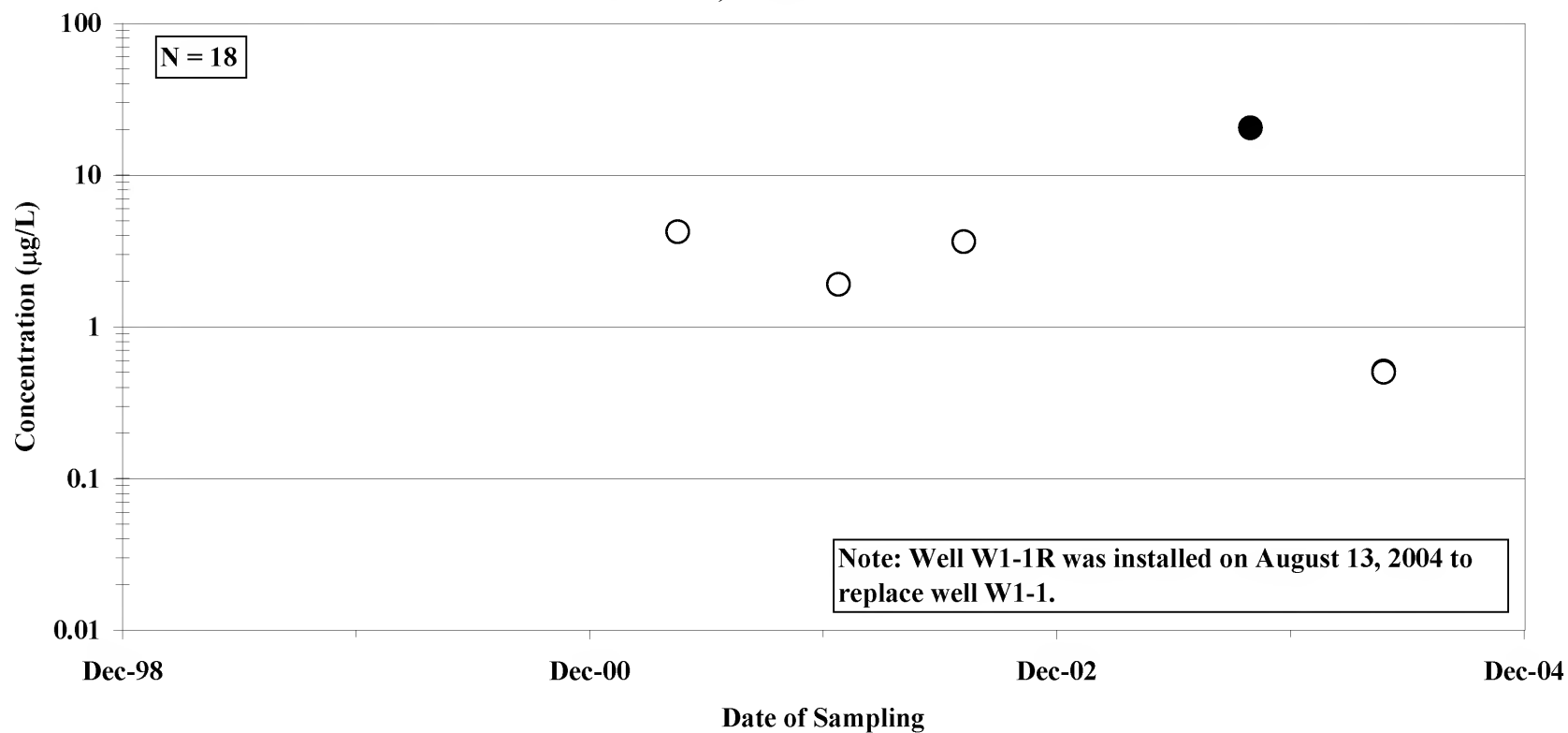


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-58

**DISSOLVED COPPER CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-1 / W1-1R
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

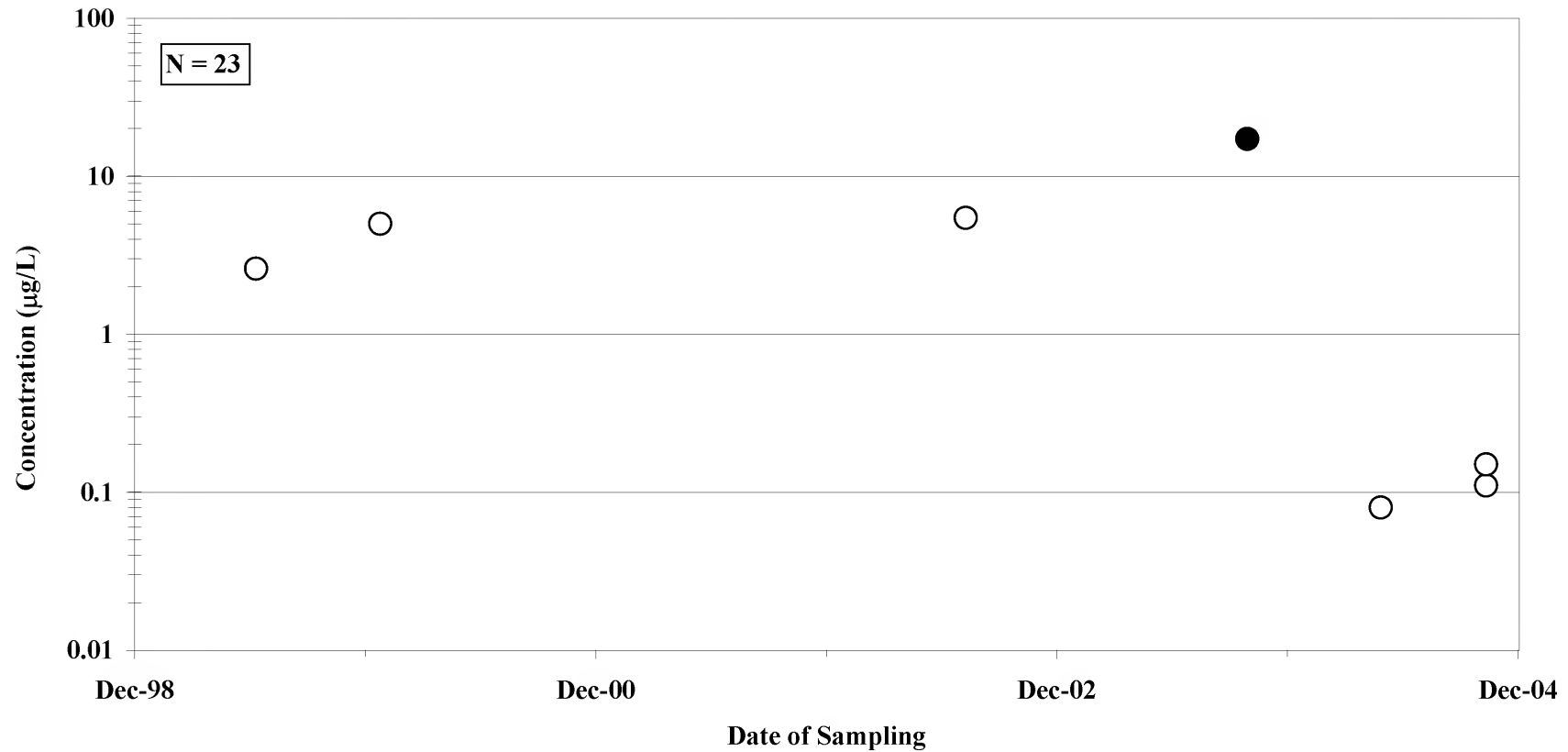


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-59

**DISSOLVED COPPER CONCENTRATIONS IN BACKGROUND MONITORING WELL W1-5
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

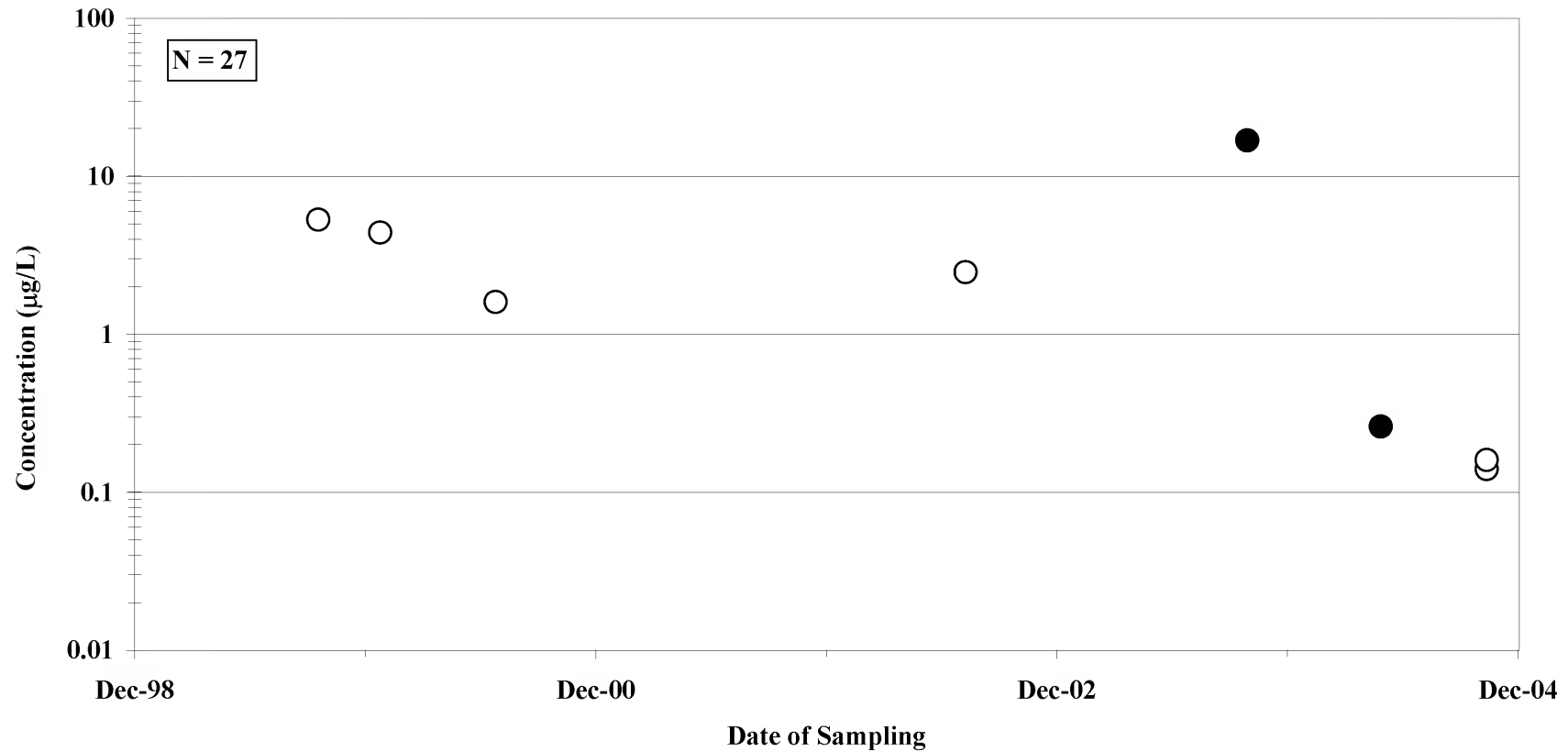


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-60

**DISSOLVED COPPER CONCENTRATIONS IN BACKGROUND MONITORING WELL W1-8
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

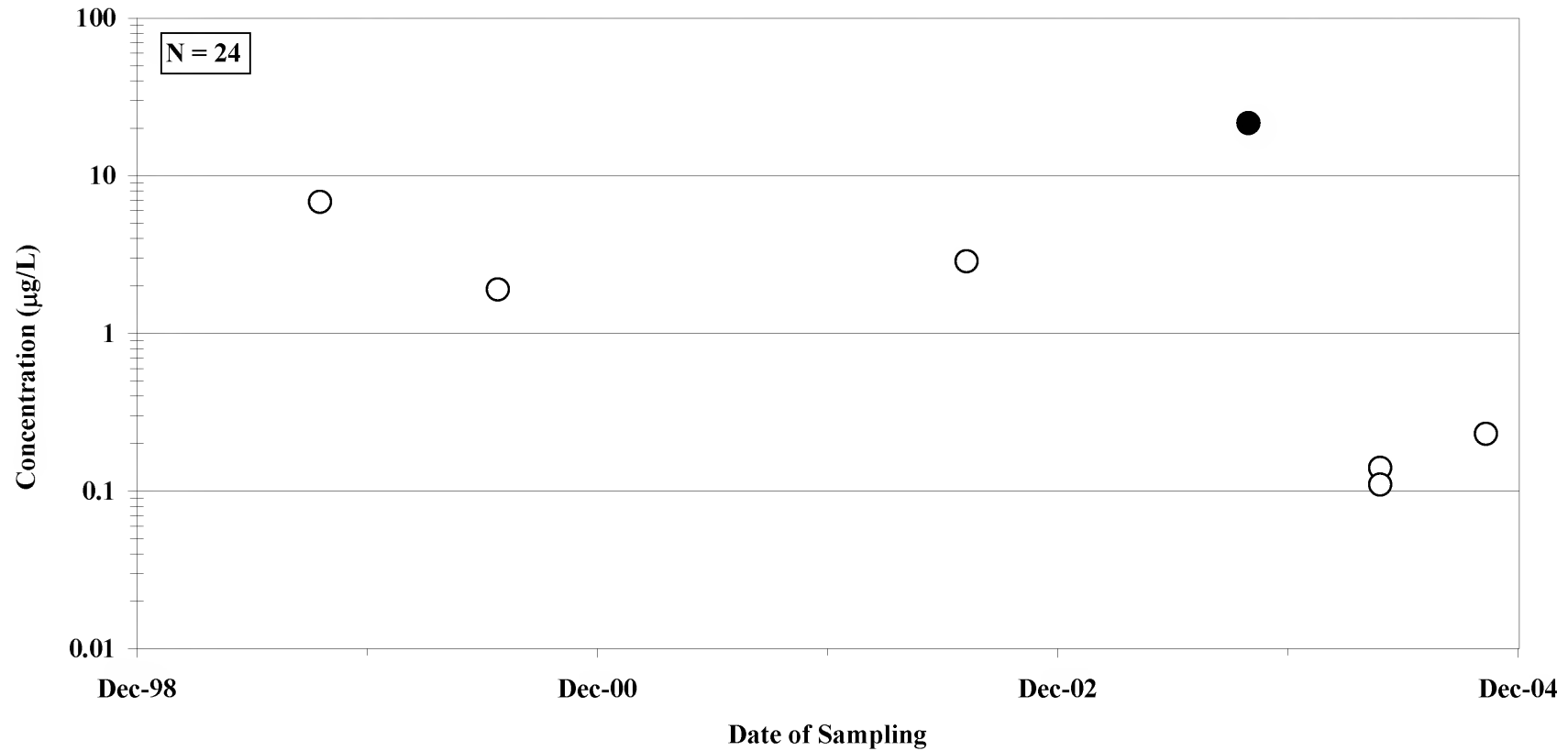


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-61

**DISSOLVED COPPER CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-14
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

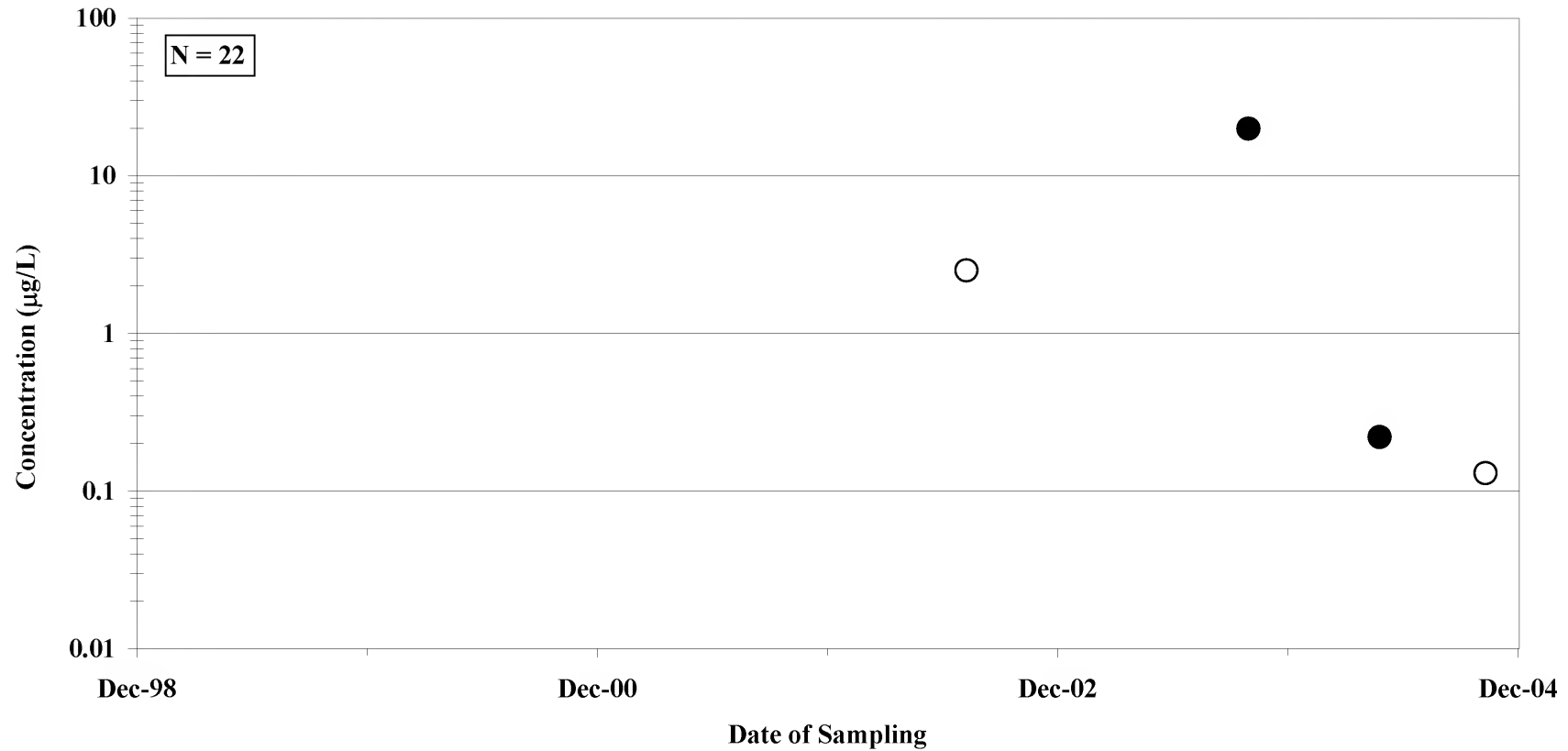


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-62

**DISSOLVED COPPER CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-15
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

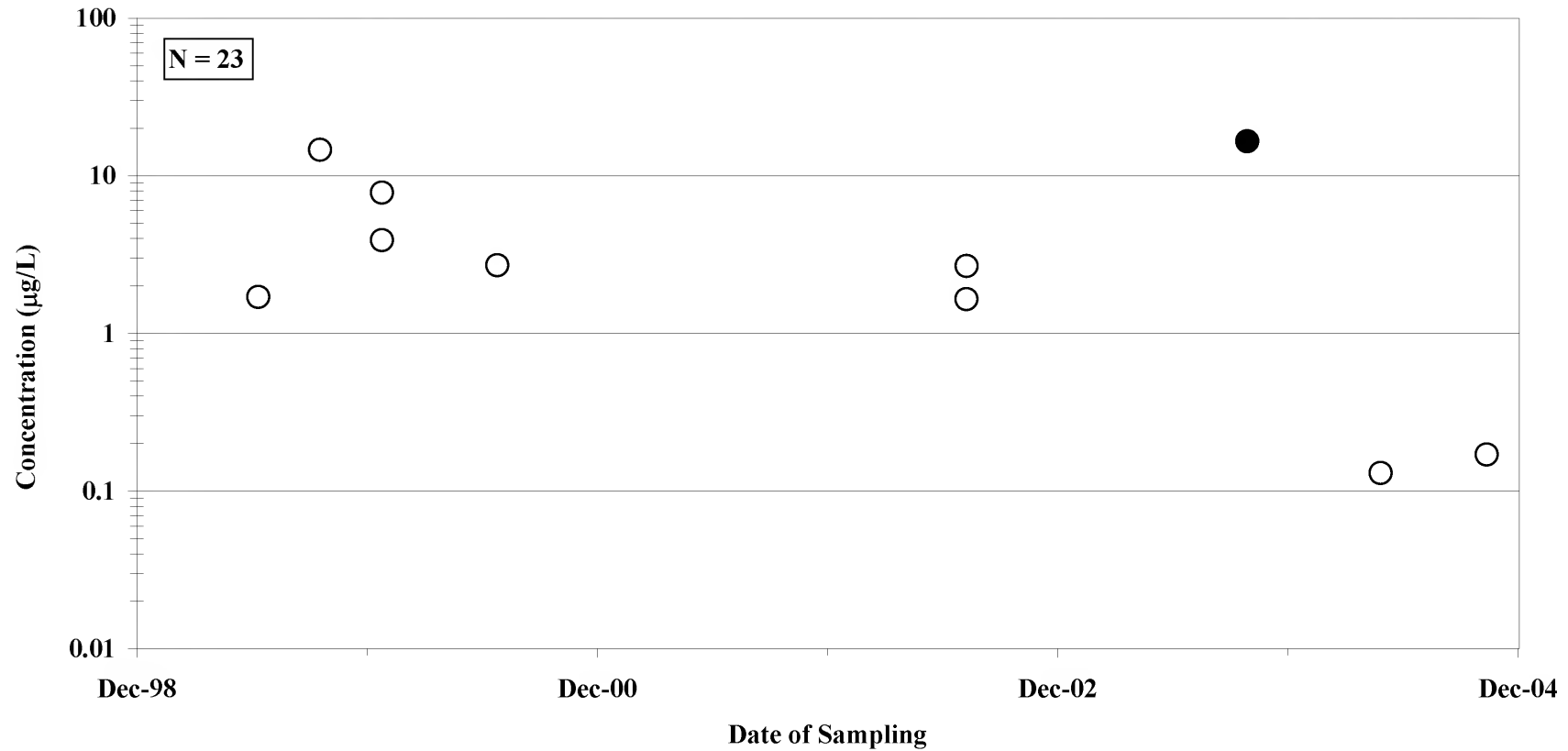


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-63

**DISSOLVED COPPER CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-16
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

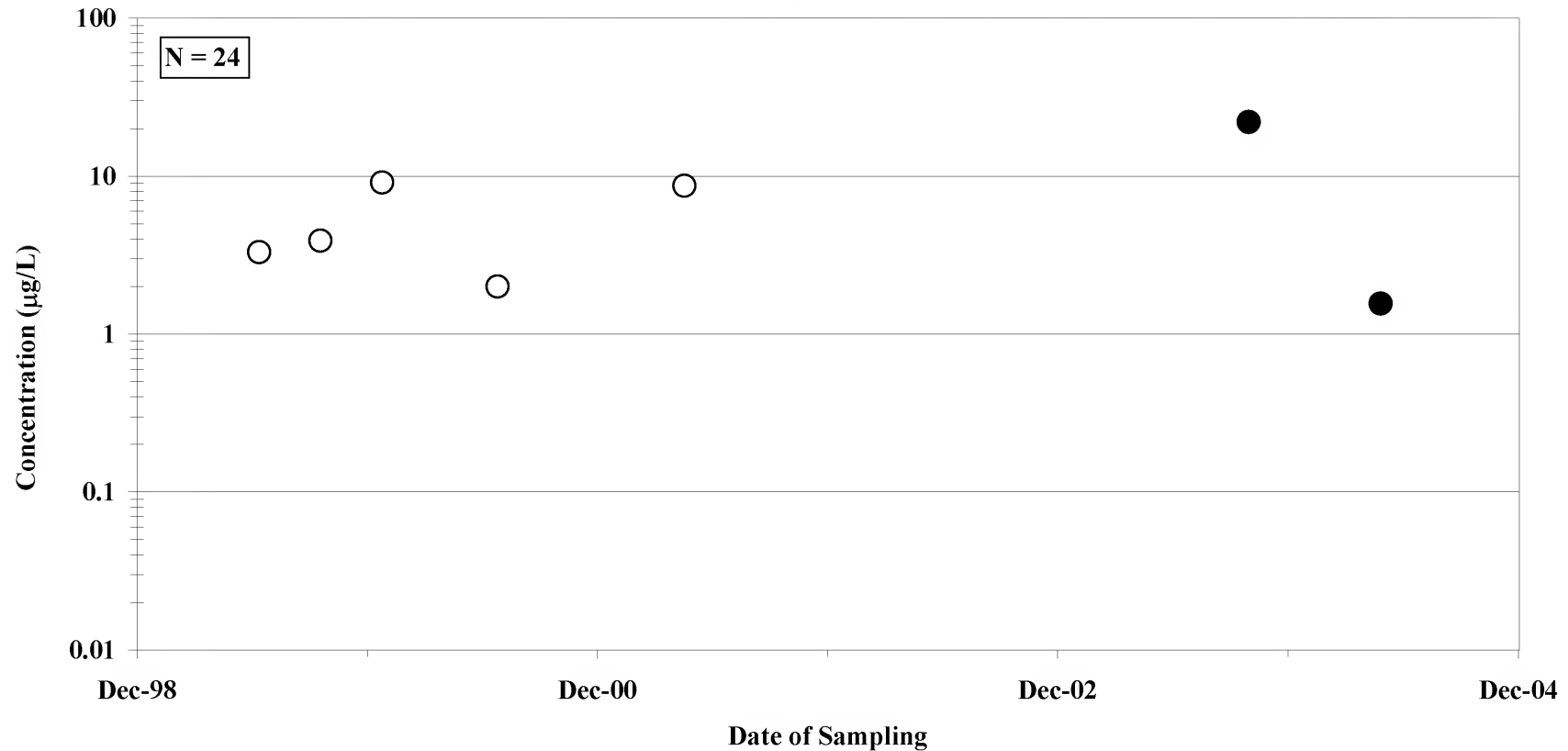


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-64

**DISSOLVED COPPER CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-19
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

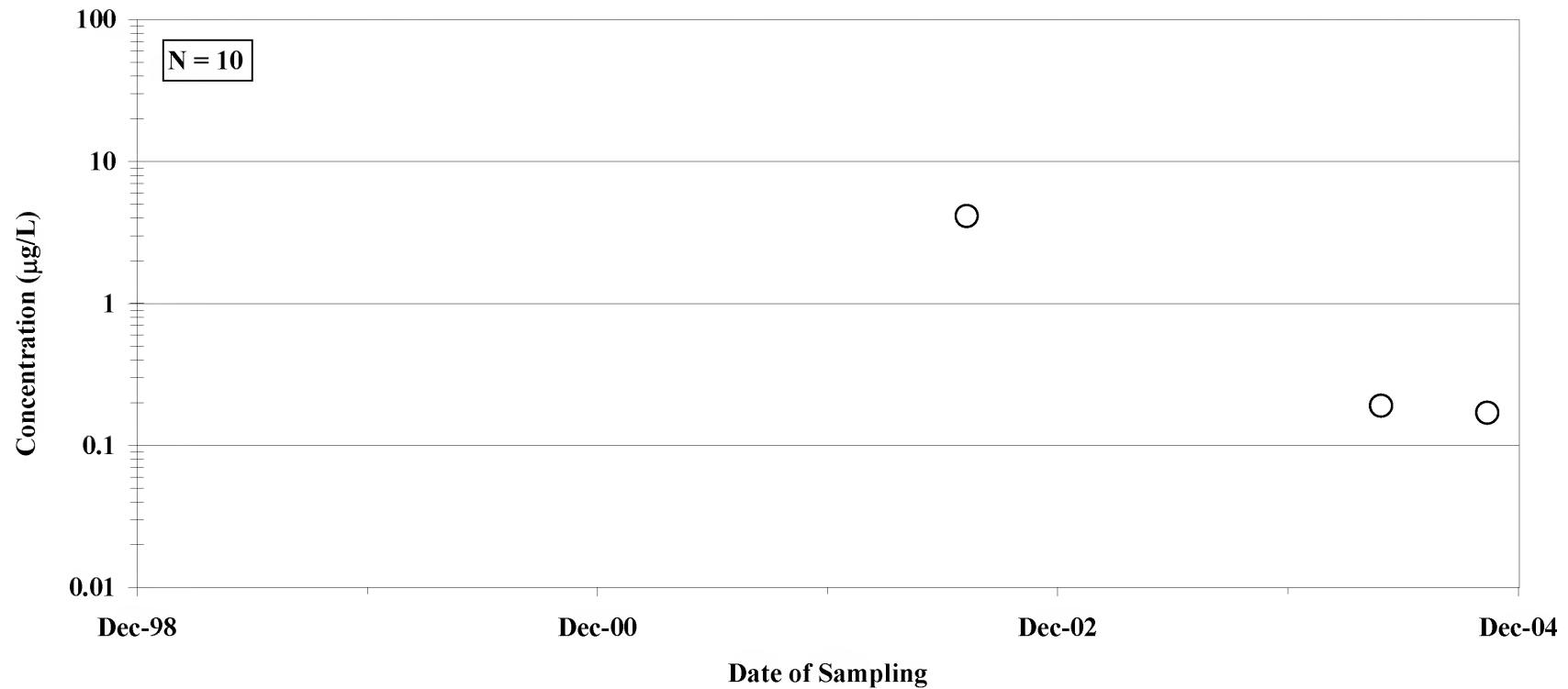


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-65

**DISSOLVED COPPER CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-24
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

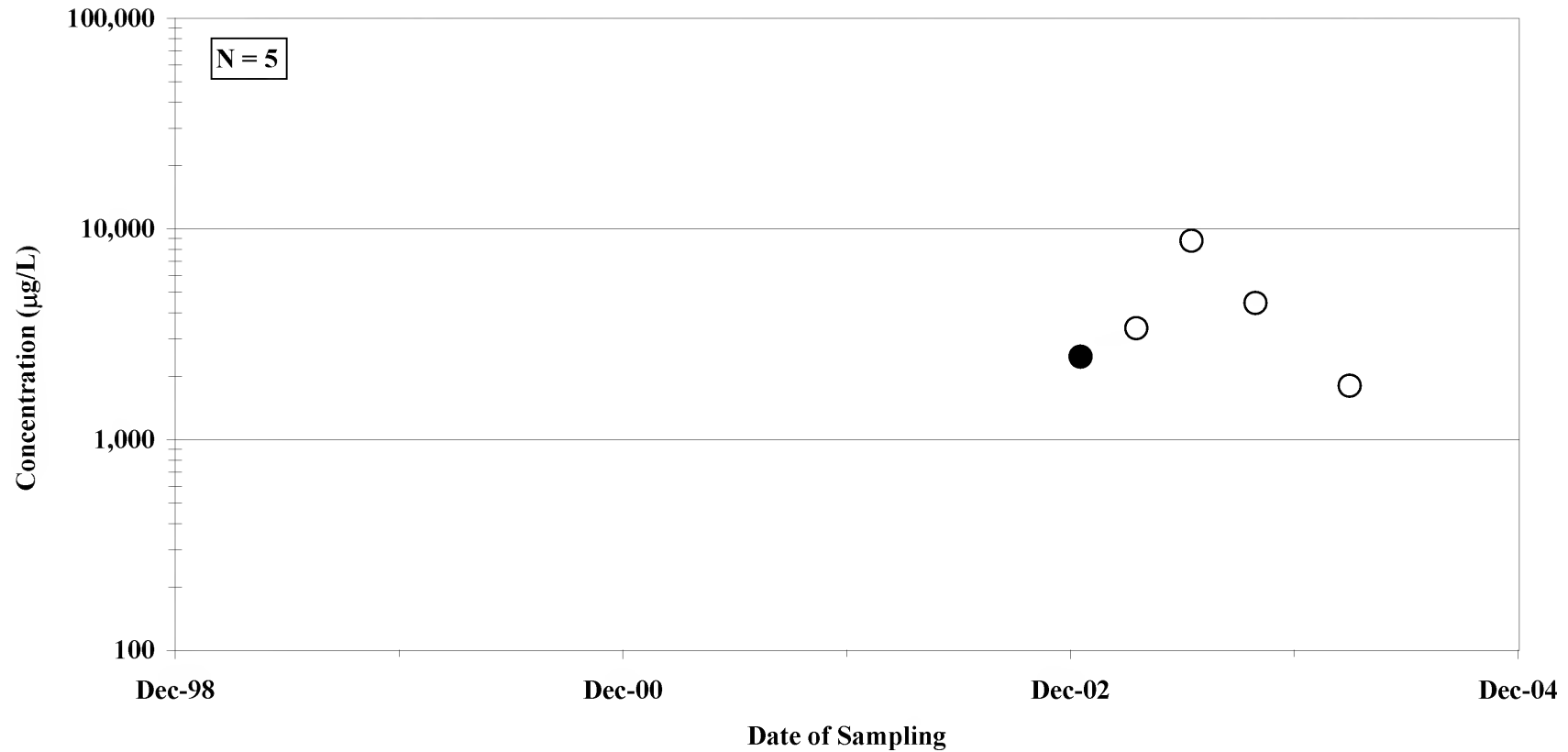


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-66

**DISSOLVED IRON CONCENTRATIONS IN BACKGROUND MONITORING WELL W1-5
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

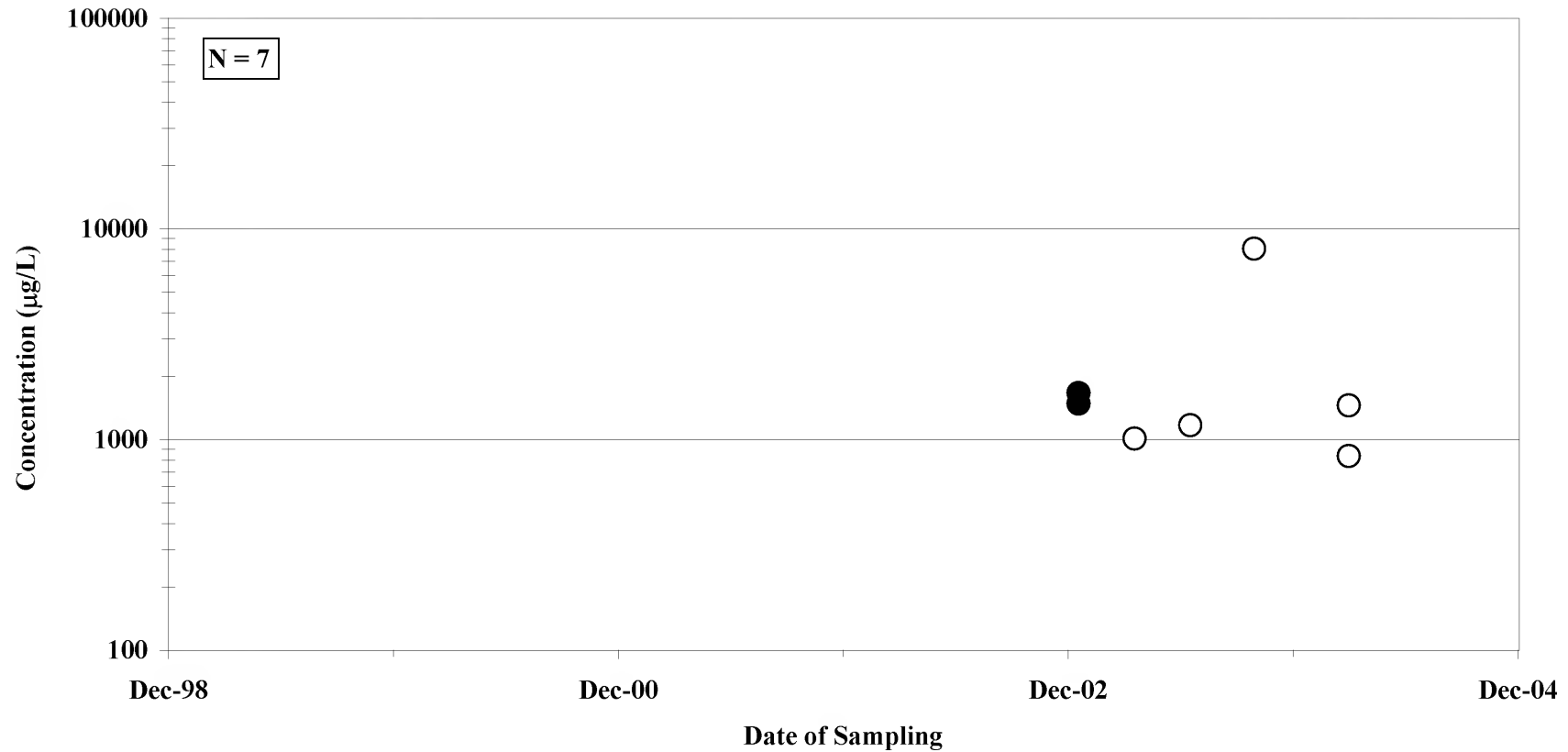


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-67

**DISSOLVED IRON CONCENTRATIONS IN BACKGROUND MONITORING WELL W1-8
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

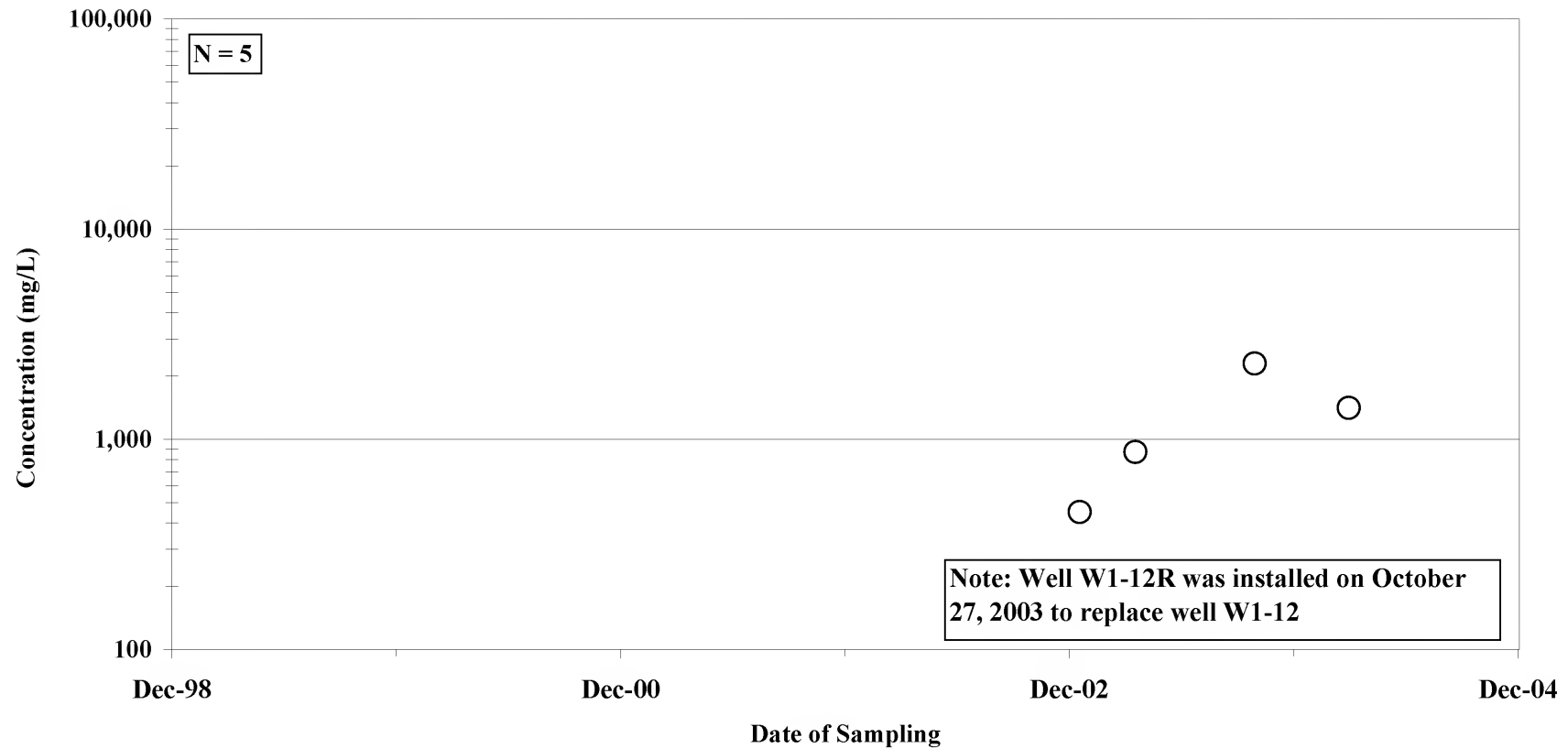


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-68

**DISSOLVED IRON CONCENTRATIONS IN BACKGROUND MONITORING WELL W1-12 / W1-12R
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

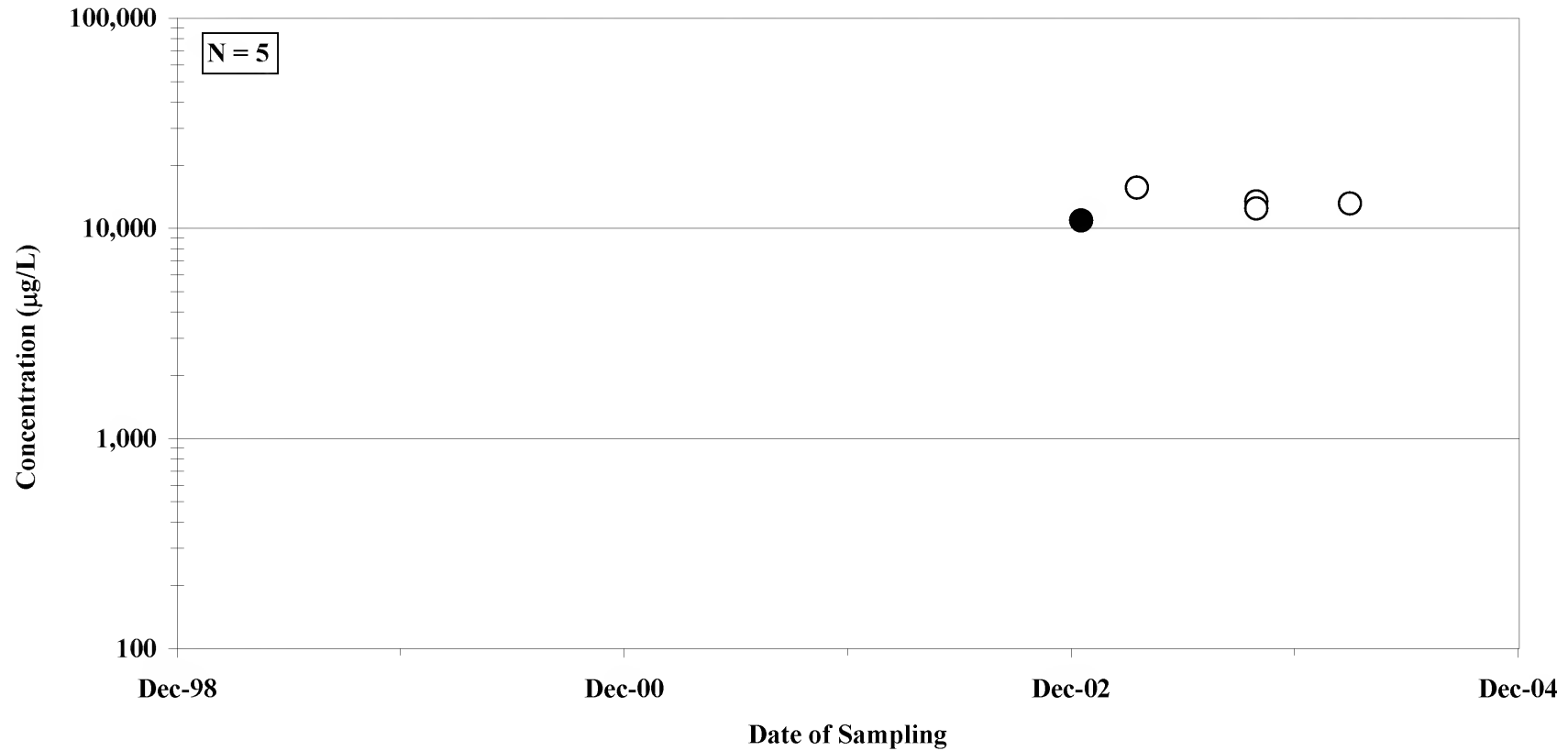


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-69

**DISSOLVED IRON CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-14
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

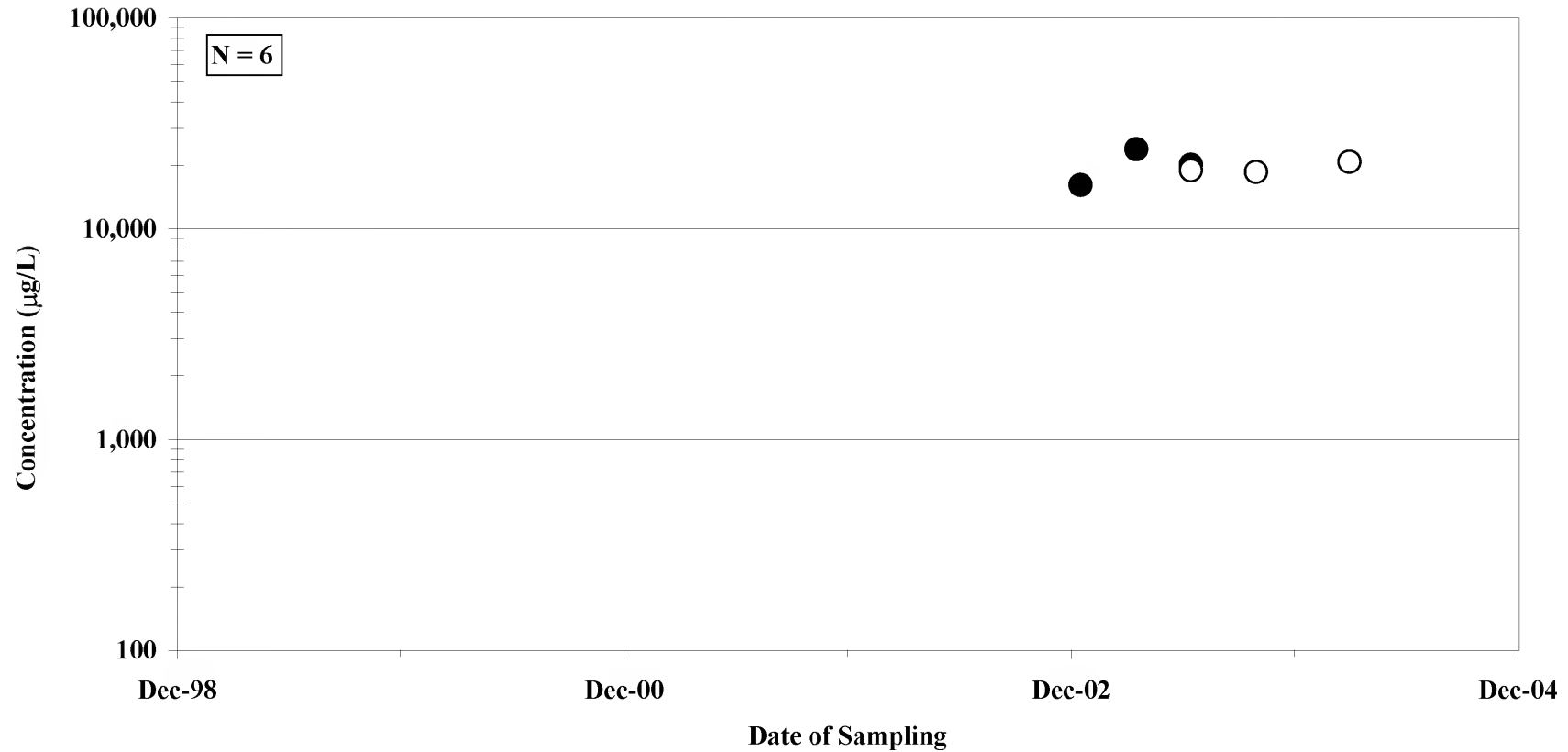


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-70

**DISSOLVED IRON CONCENTRATIONS IN DOWNGRADIENT MONITORING WELL W1-15
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

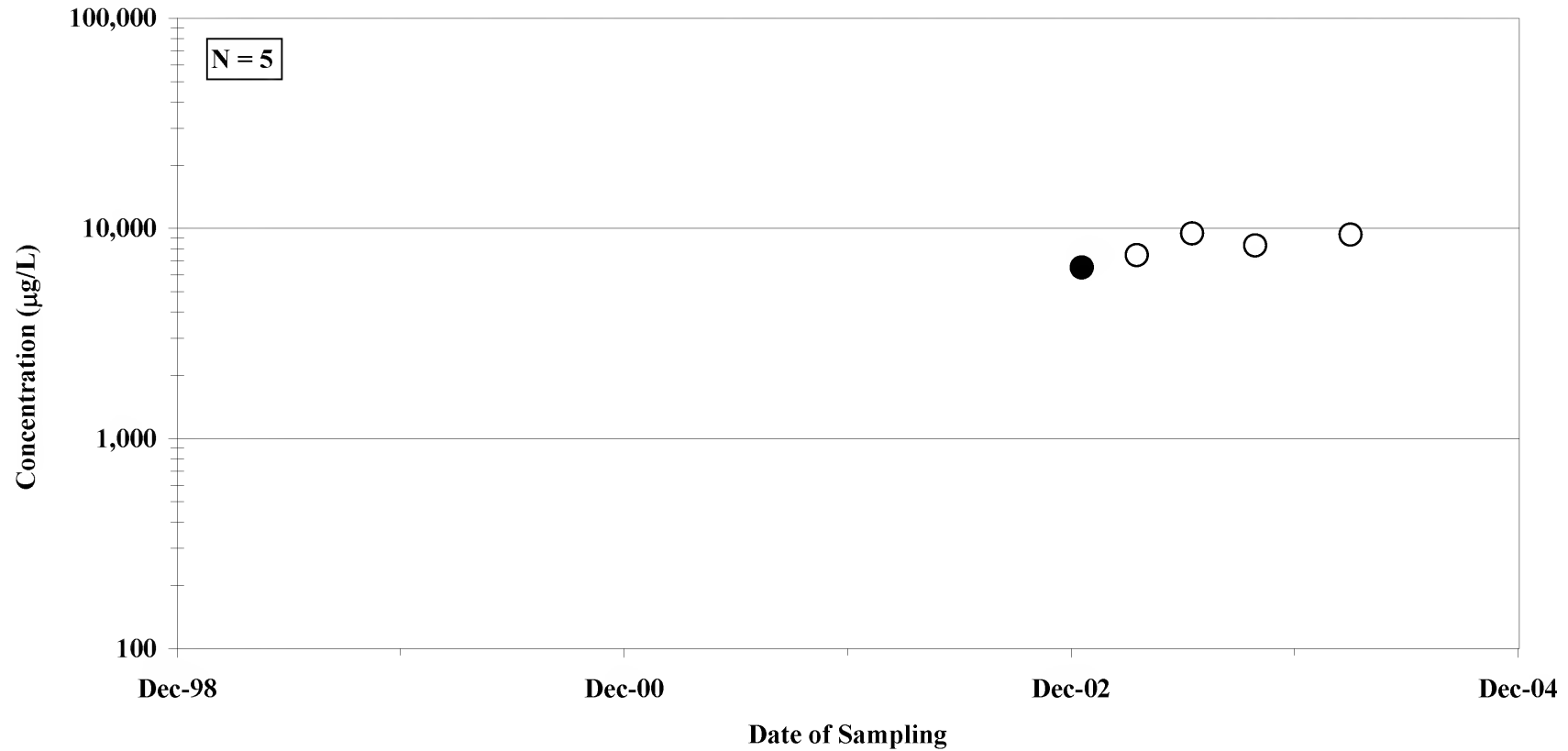


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-71

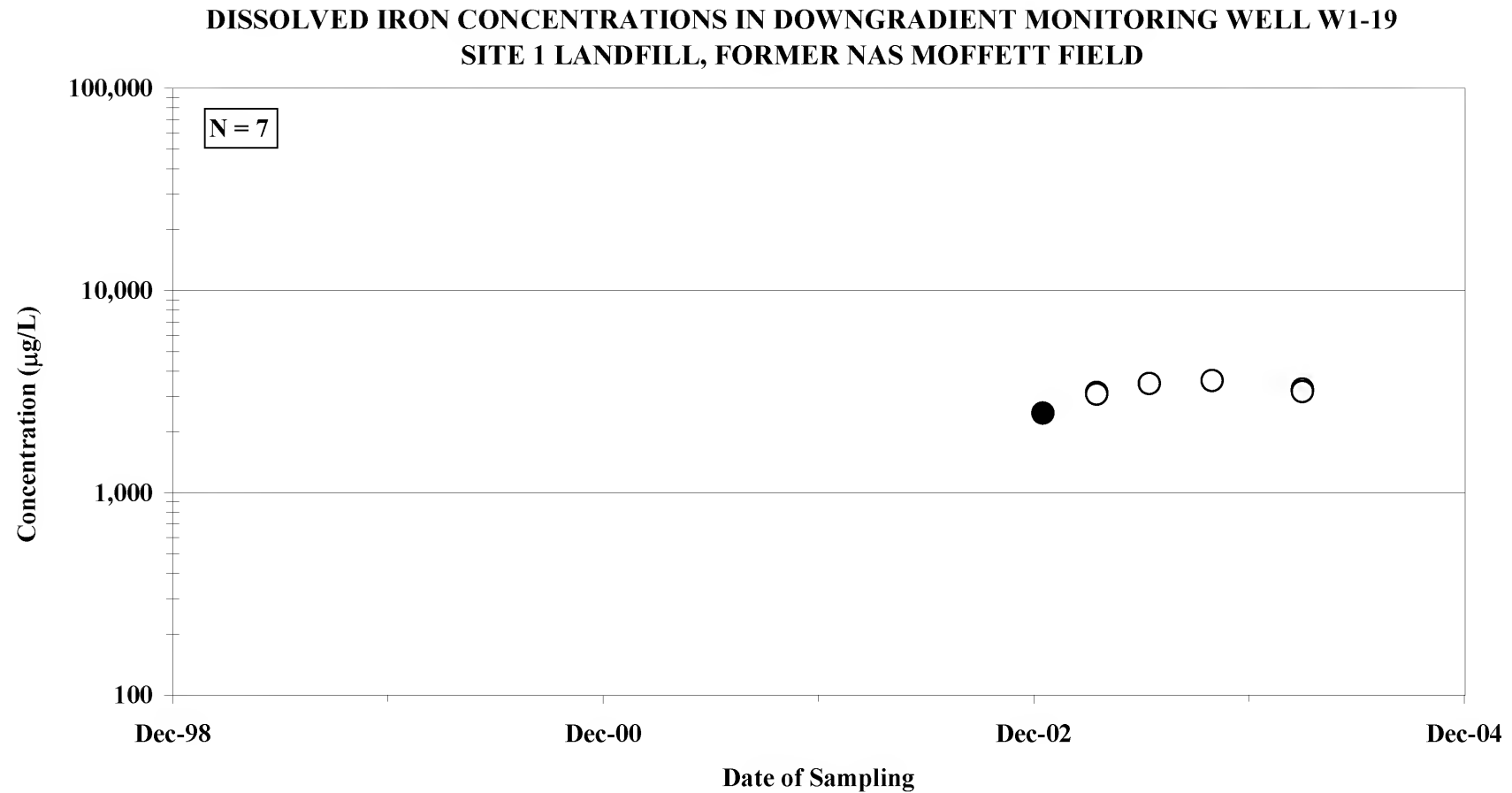
**DISSOLVED IRON CONCENTRATIONS IN DOWNGRADIENT MONITORING WELL W1-16
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**



Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

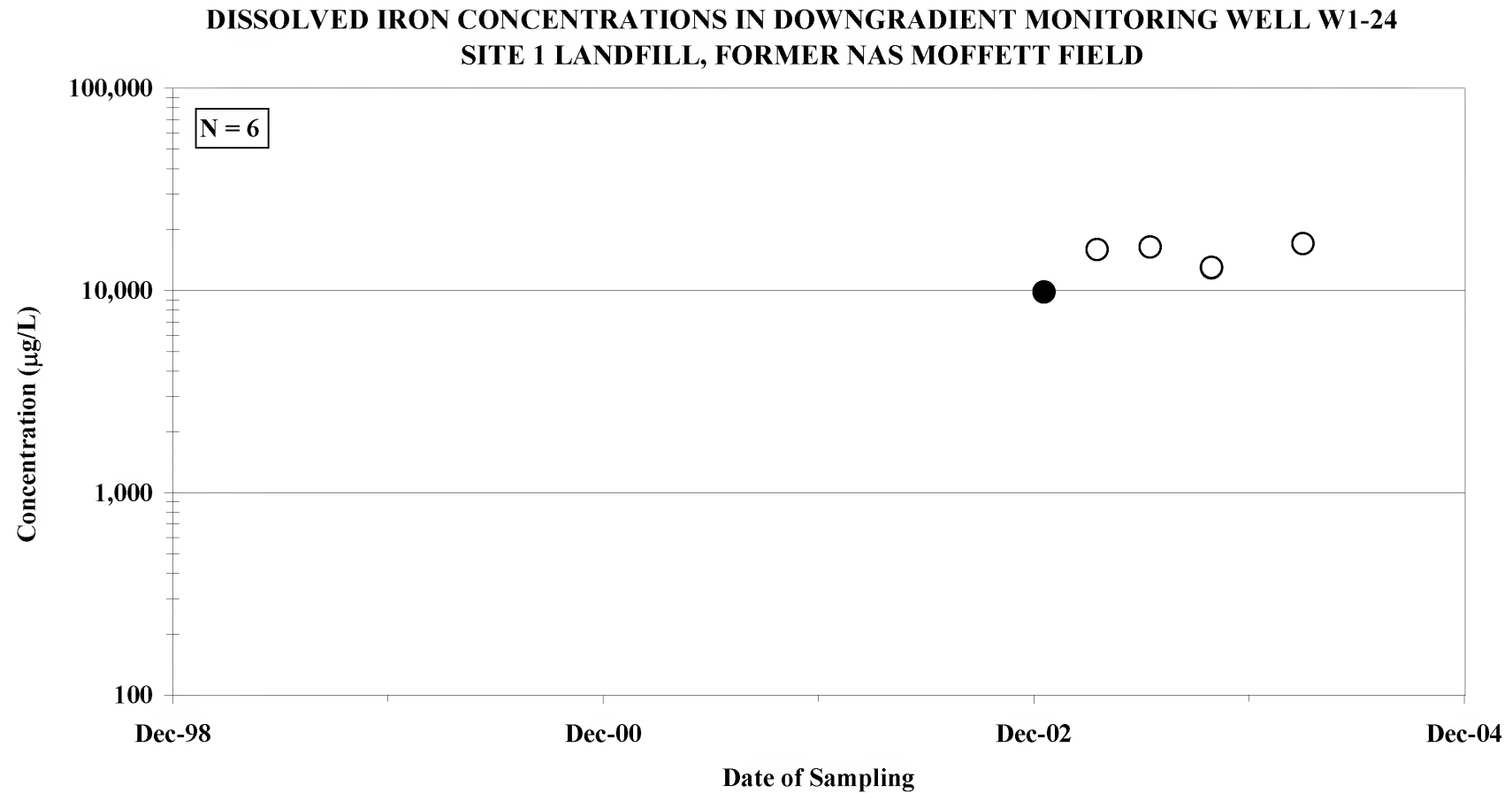
FIGURE E-72



Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-73

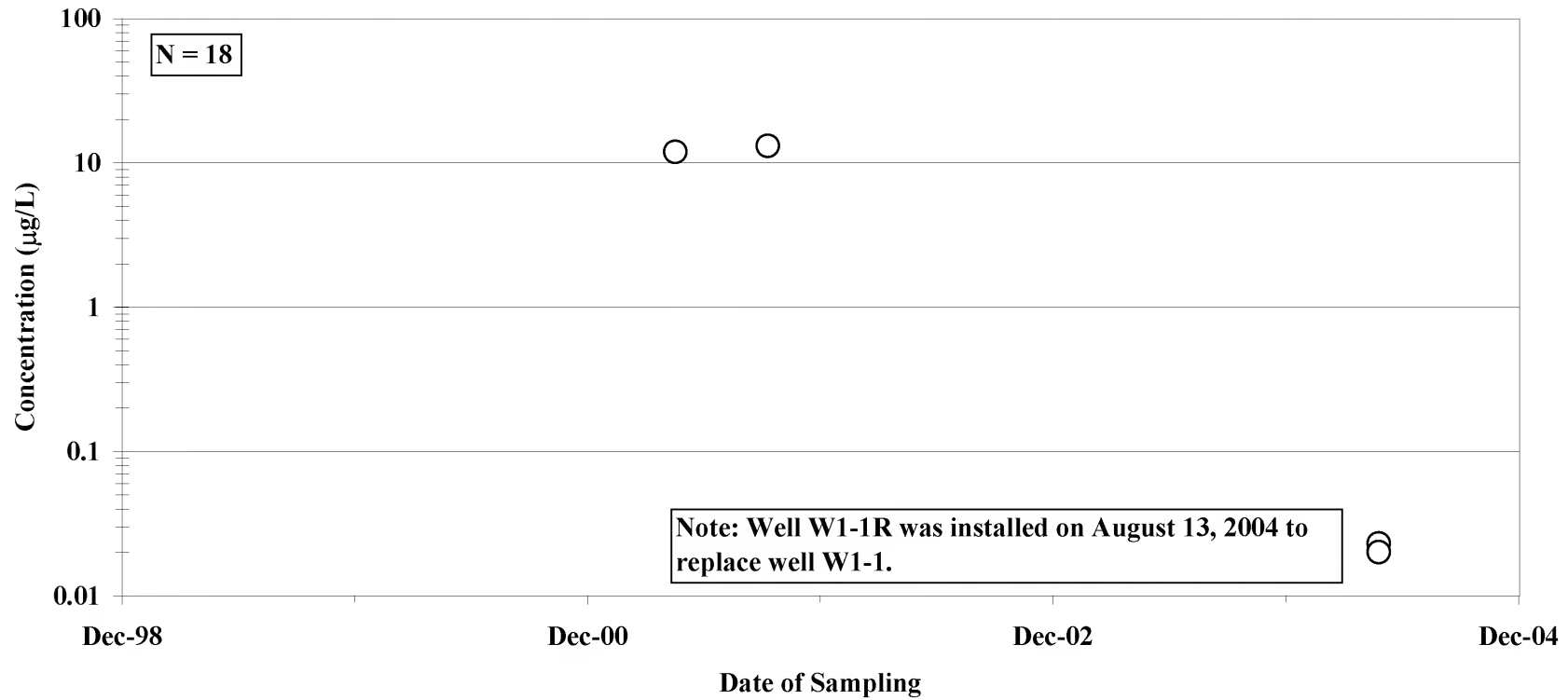


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-74

**DISSOLVED LEAD CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-1 / W1-1R
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

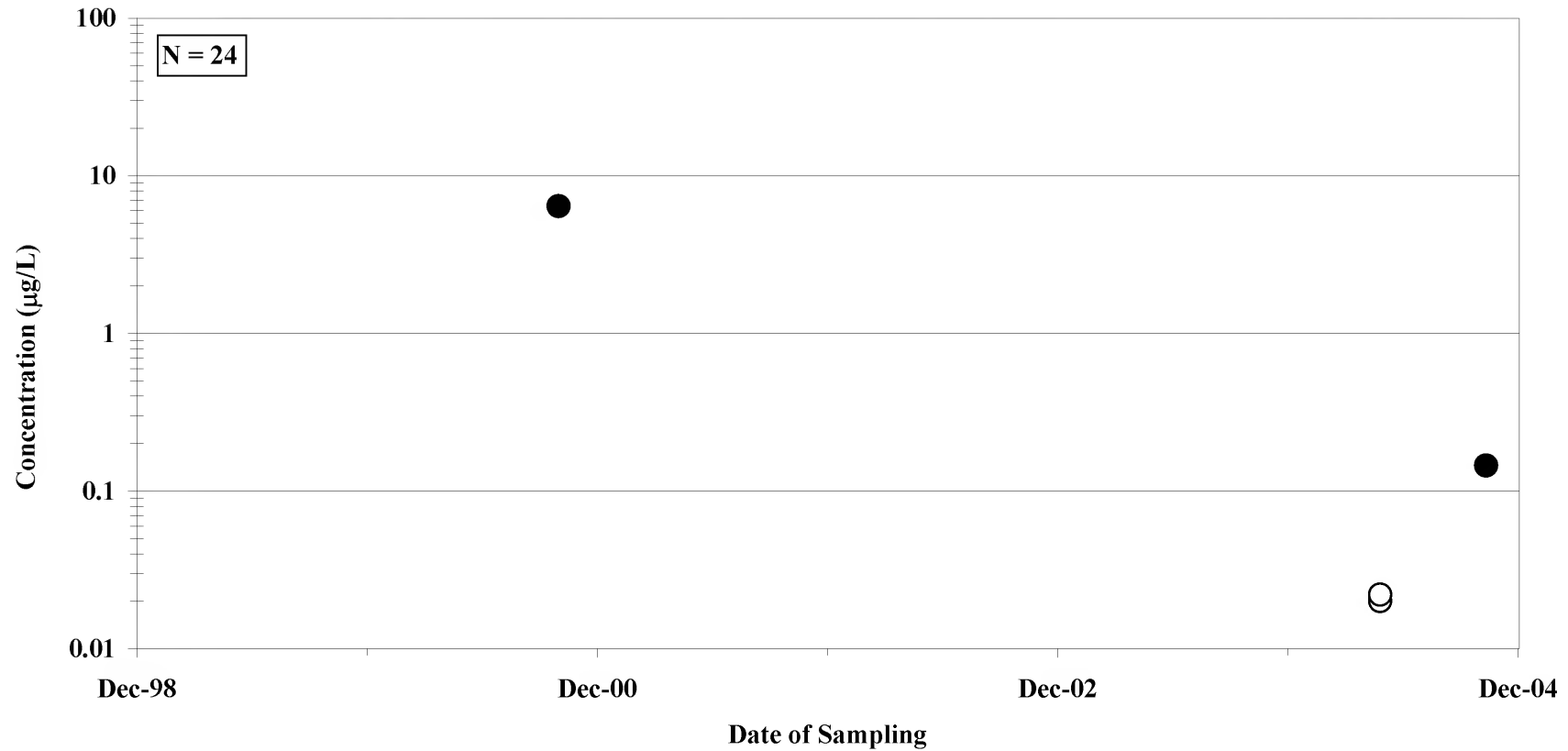


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-75

**DISSOLVED LEAD CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-14
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

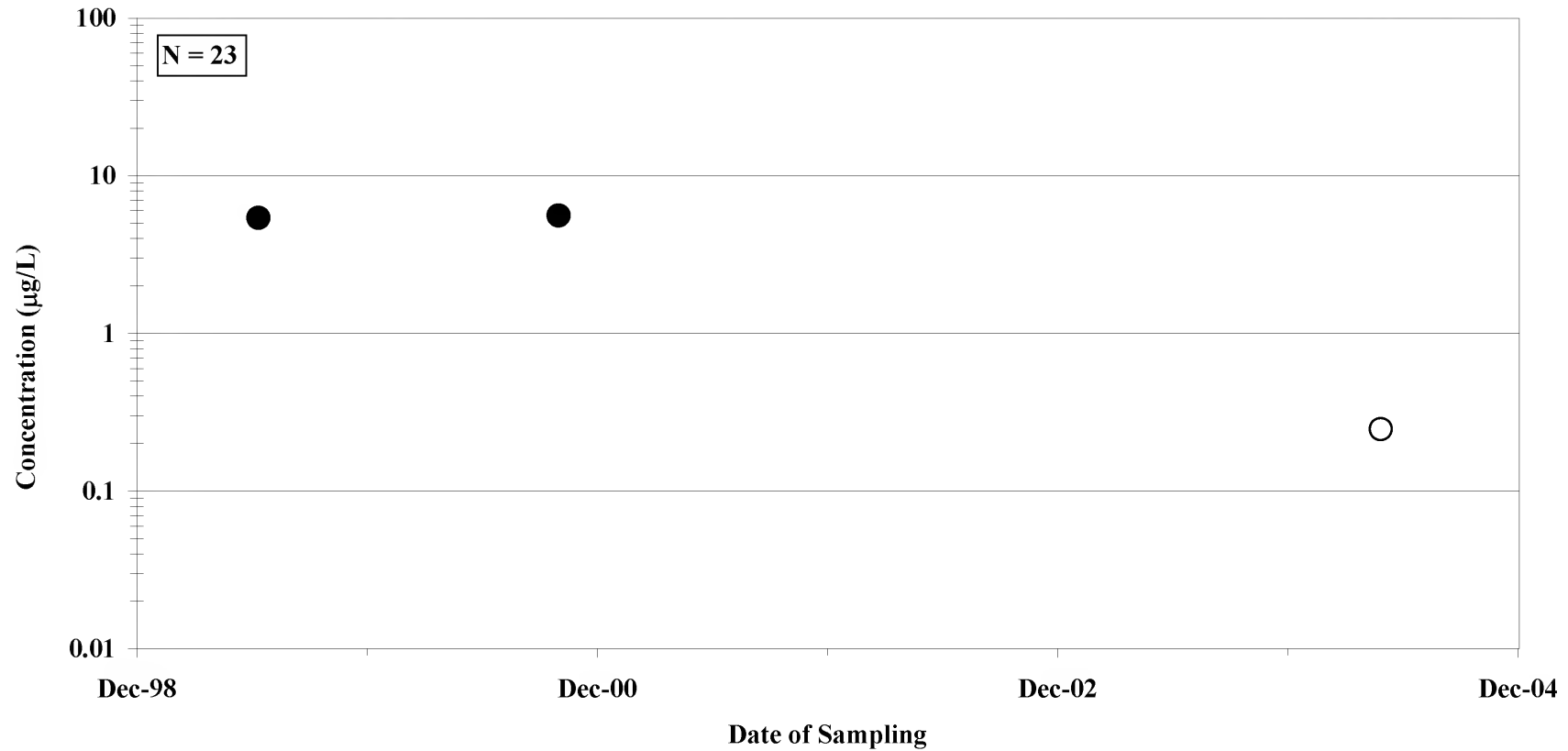


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-76

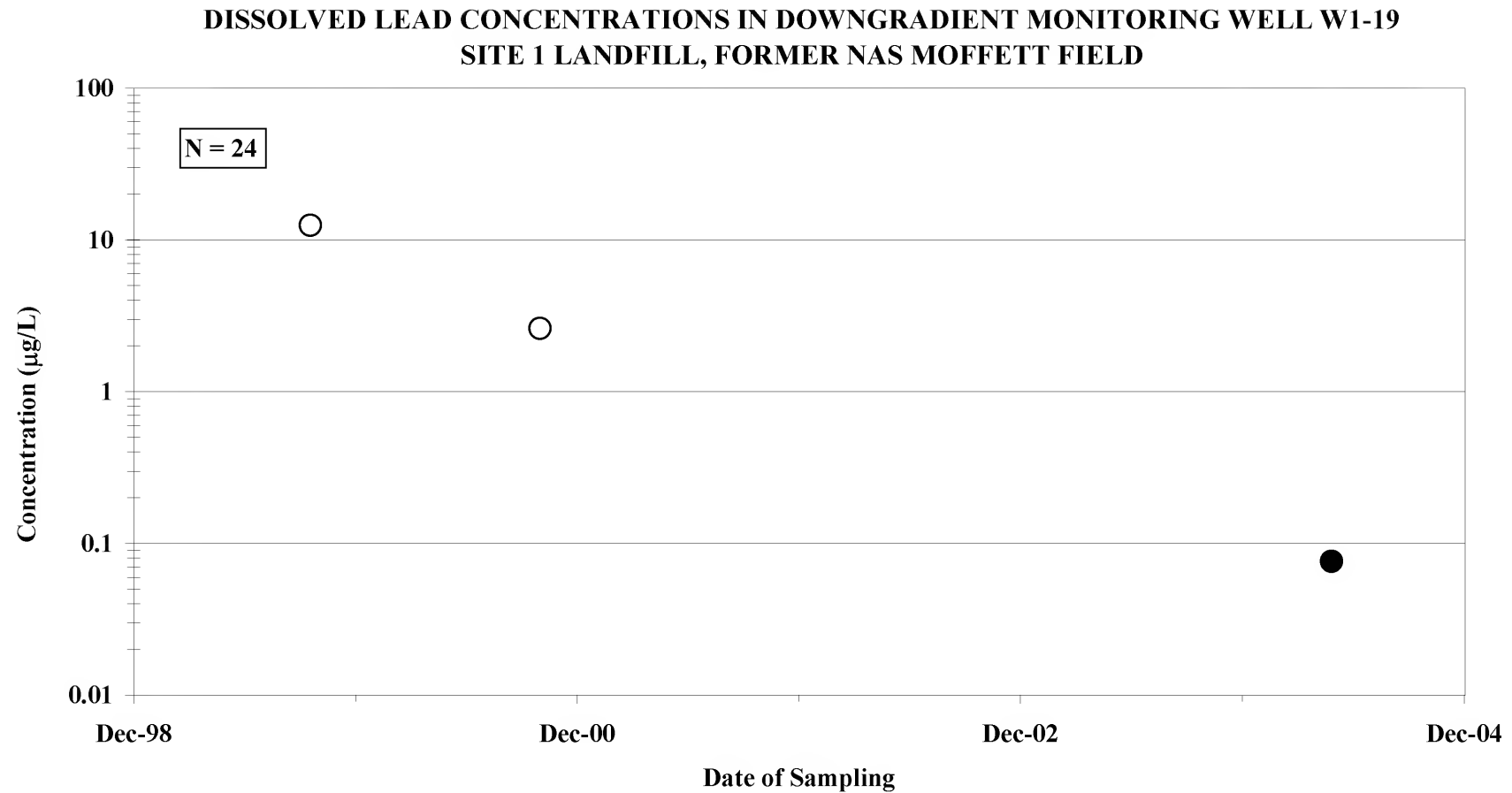
**DISSOLVED LEAD CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-16
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**



Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-77

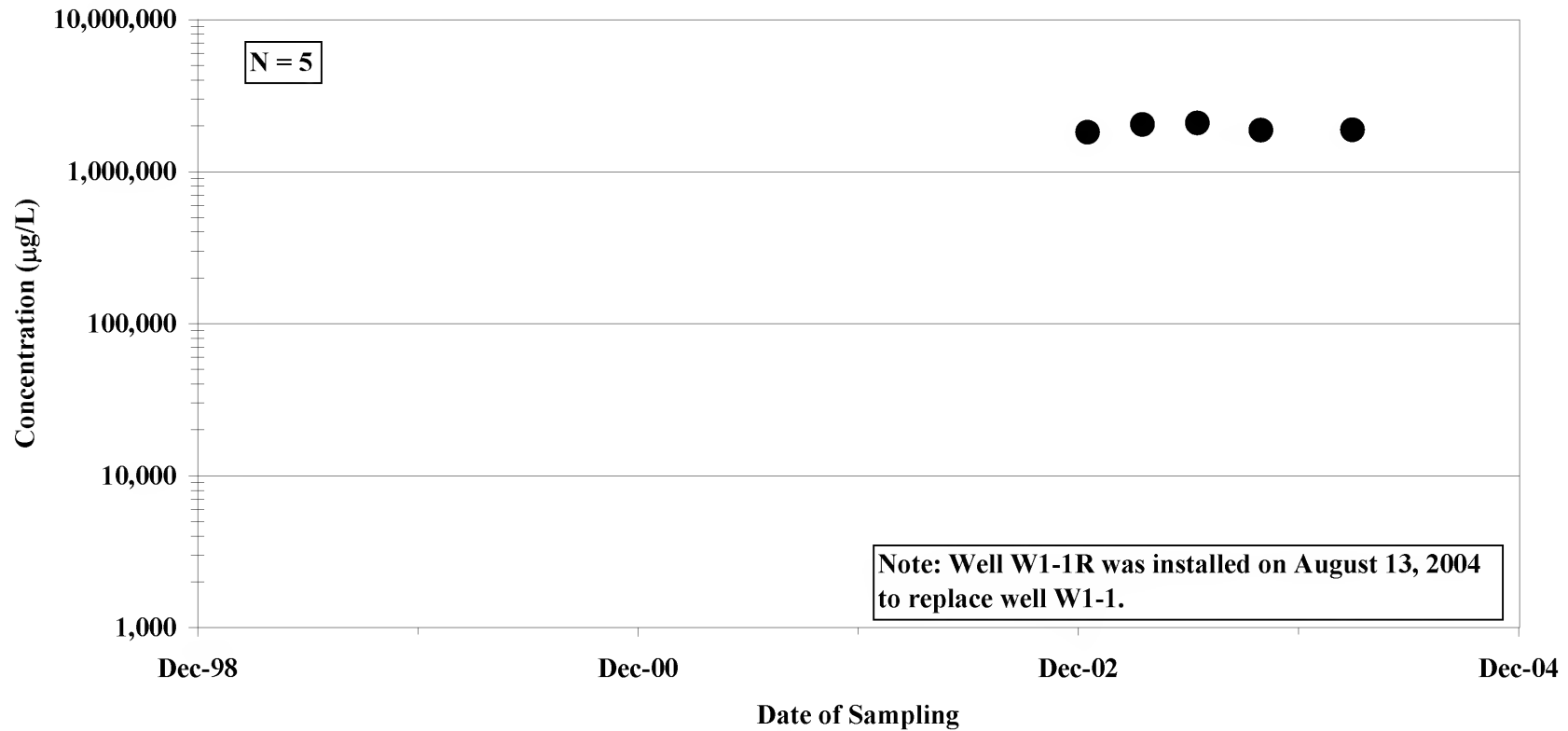


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-78

**DISSOLVED MAGNESIUM CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-1 / W1-1R
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

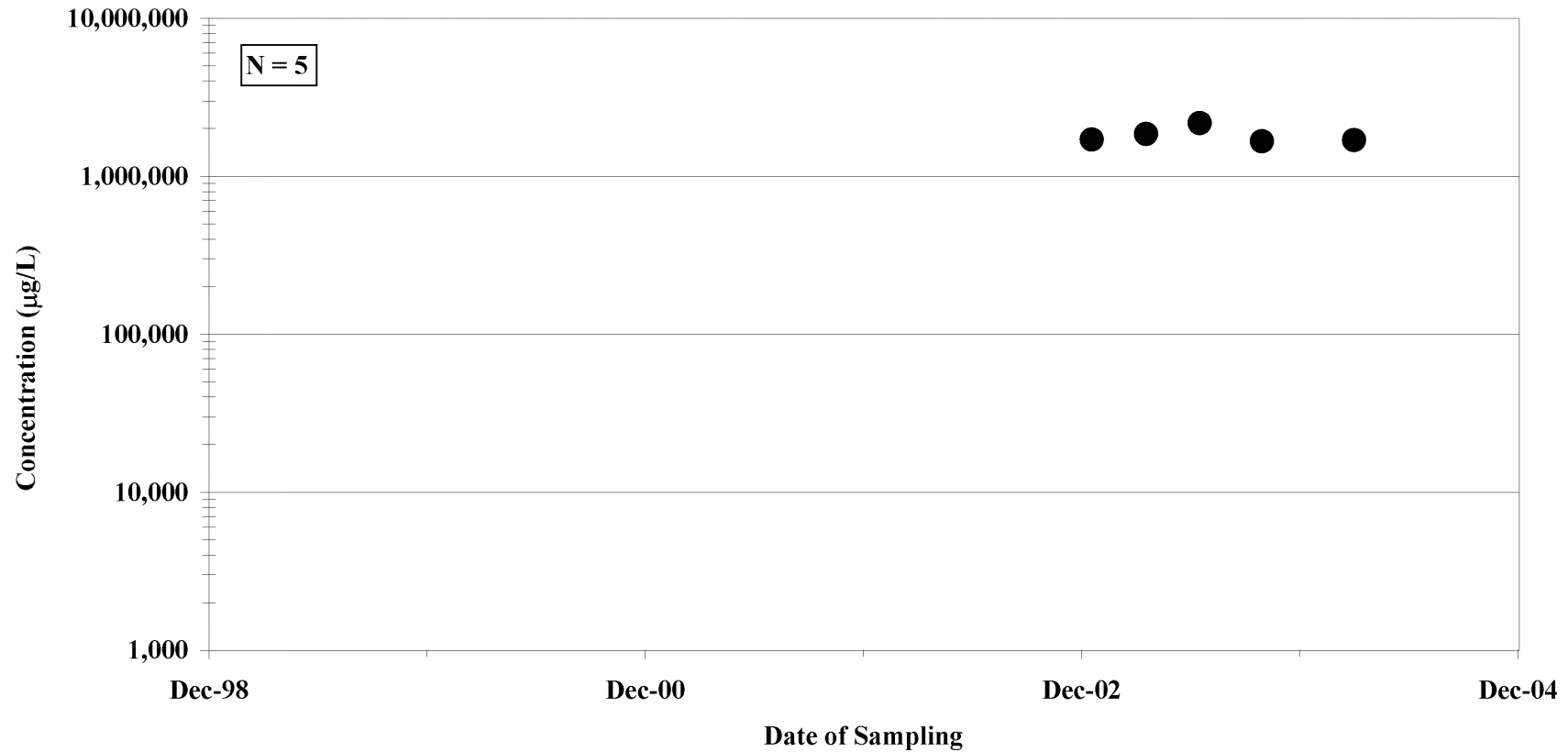


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-79

**DISSOLVED MAGNESIUM CONCENTRATIONS IN BACKGROUND MONITORING WELL W1-5
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

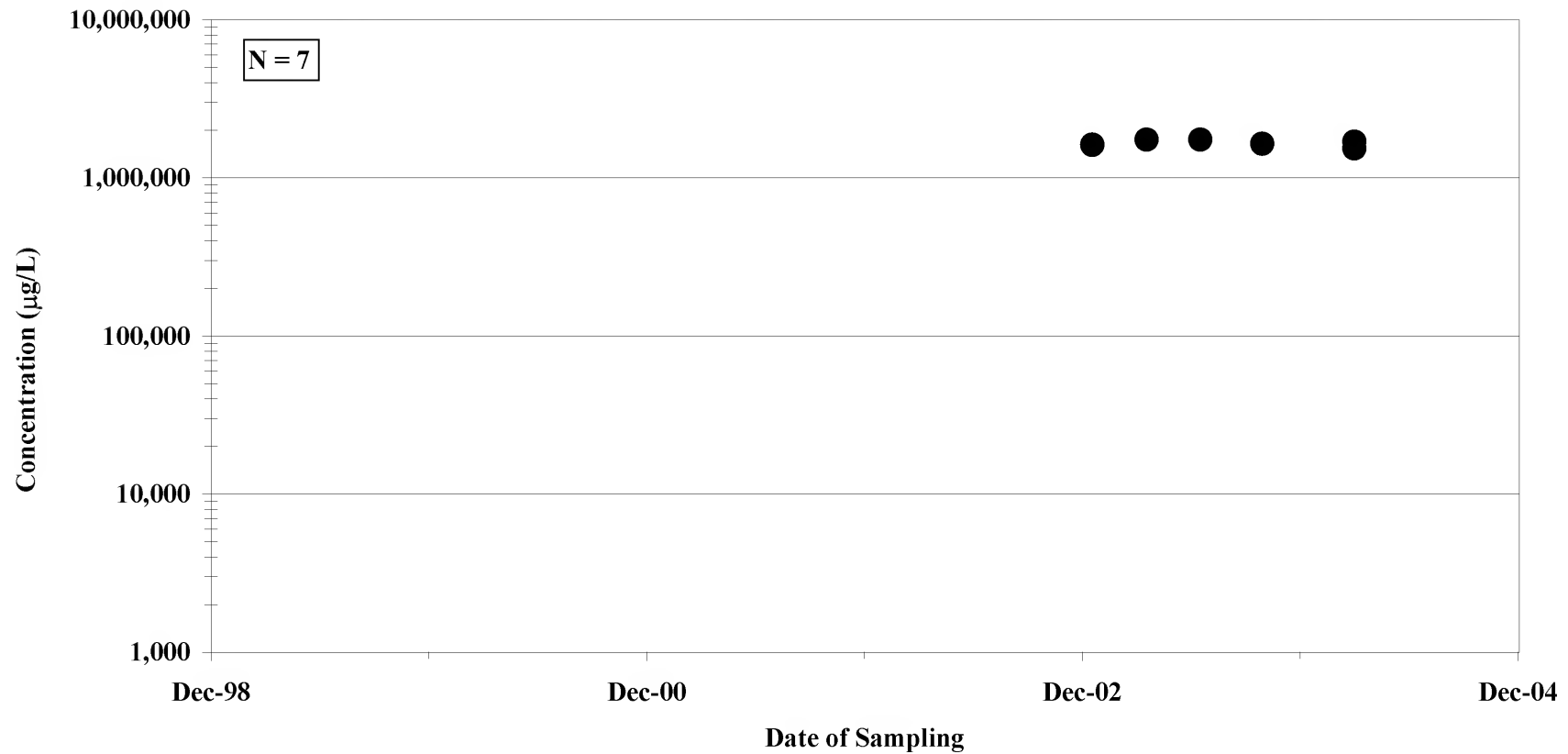


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-80

**DISSOLVED MAGNESIUM CONCENTRATIONS IN BACKGROUND MONITORING WELL W1-8
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

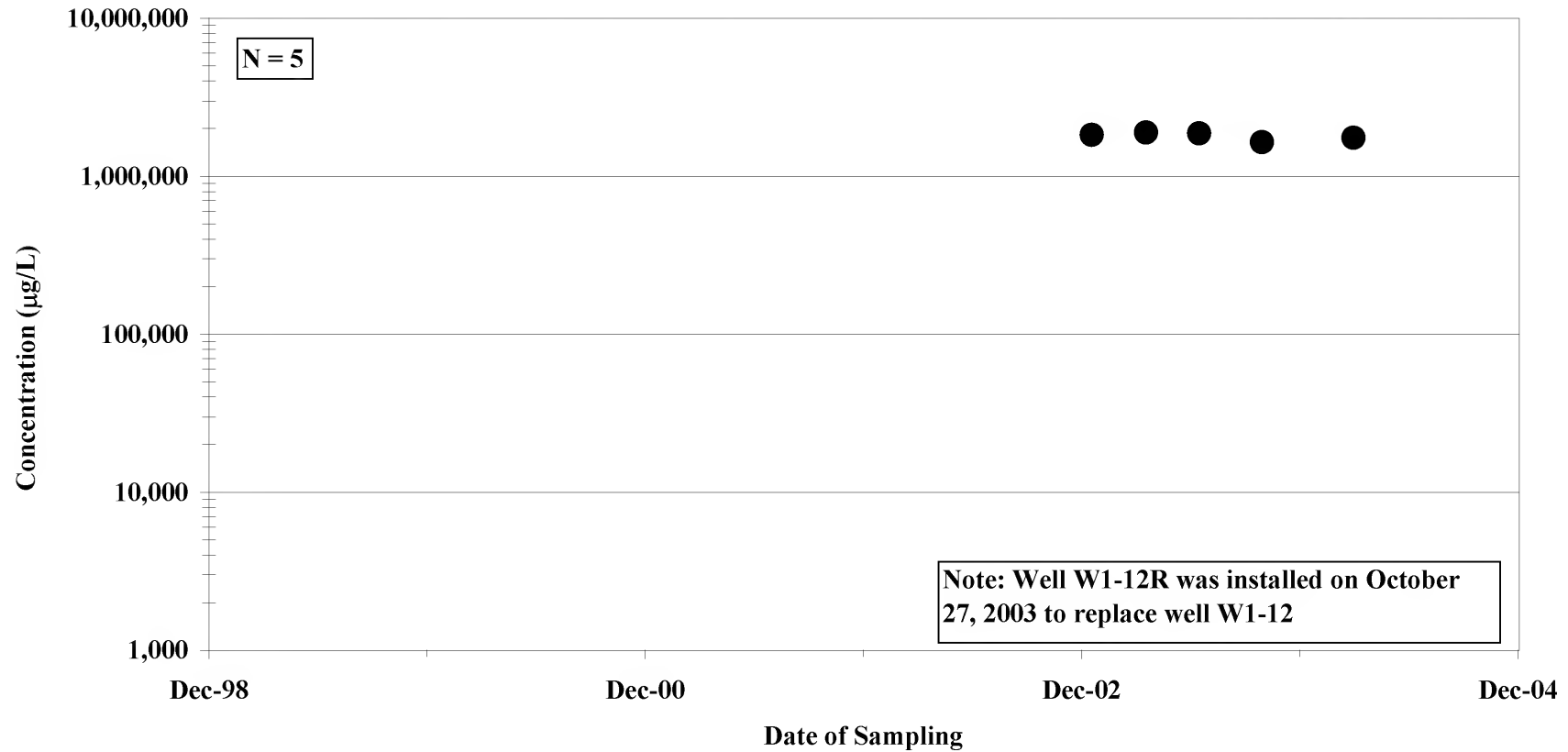


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-81

**DISSOLVED MAGNESIUM CONCENTRATIONS IN BACKGROUND MONITORING WELL W1-12 / W1-12R
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

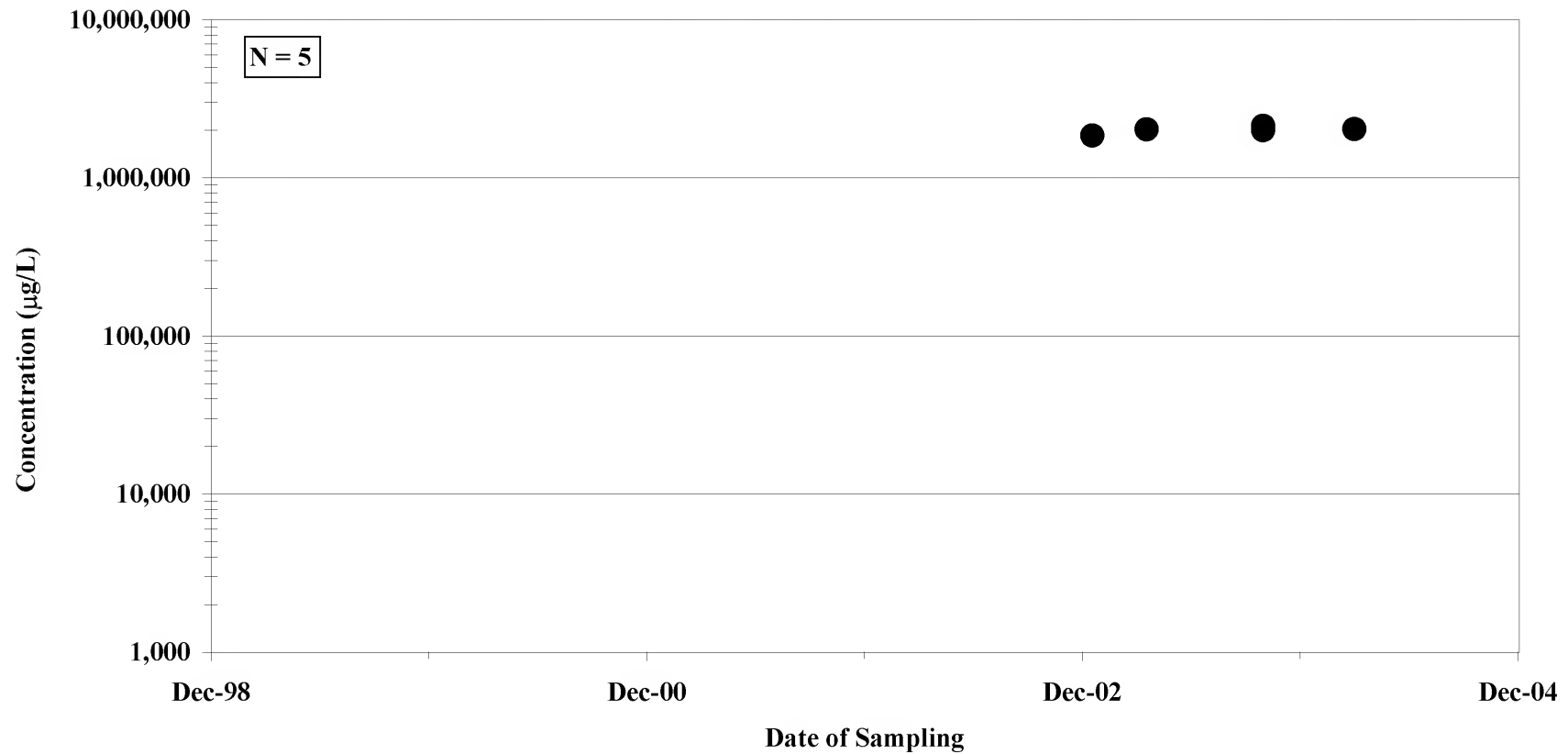


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-82

**DISSOLVED MAGNESIUM CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-14
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

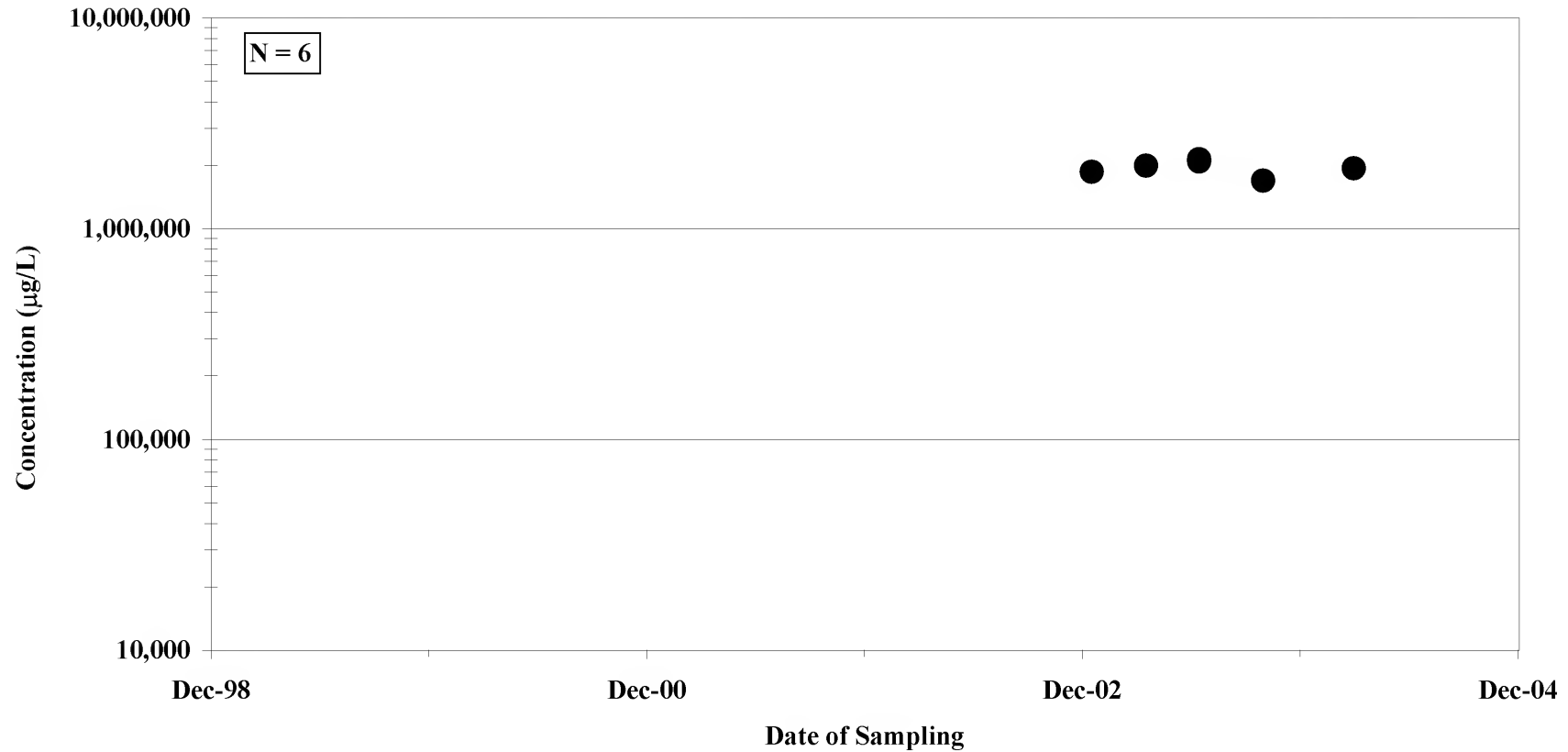


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-83

**DISSOLVED MAGNESIUM CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-15
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

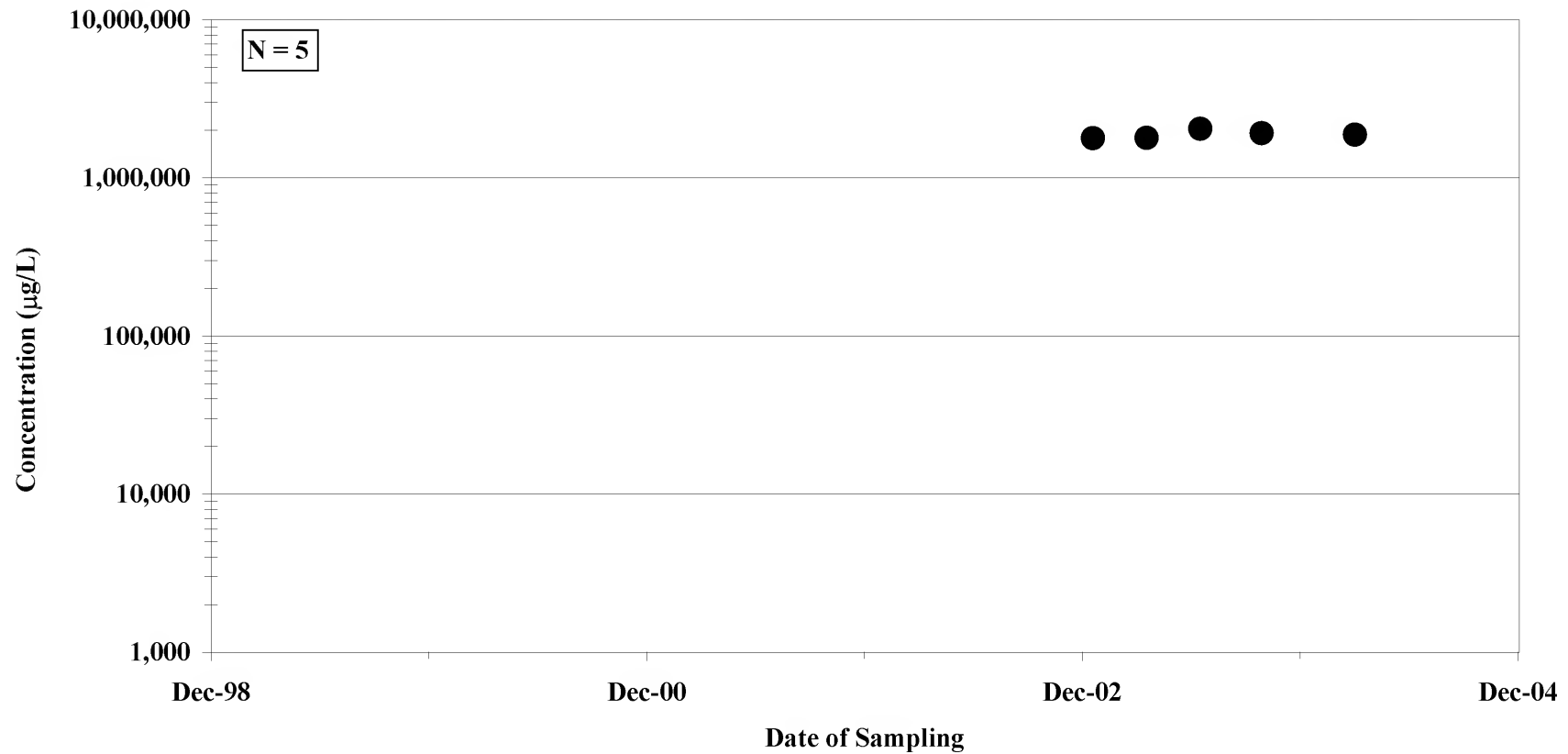


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-84

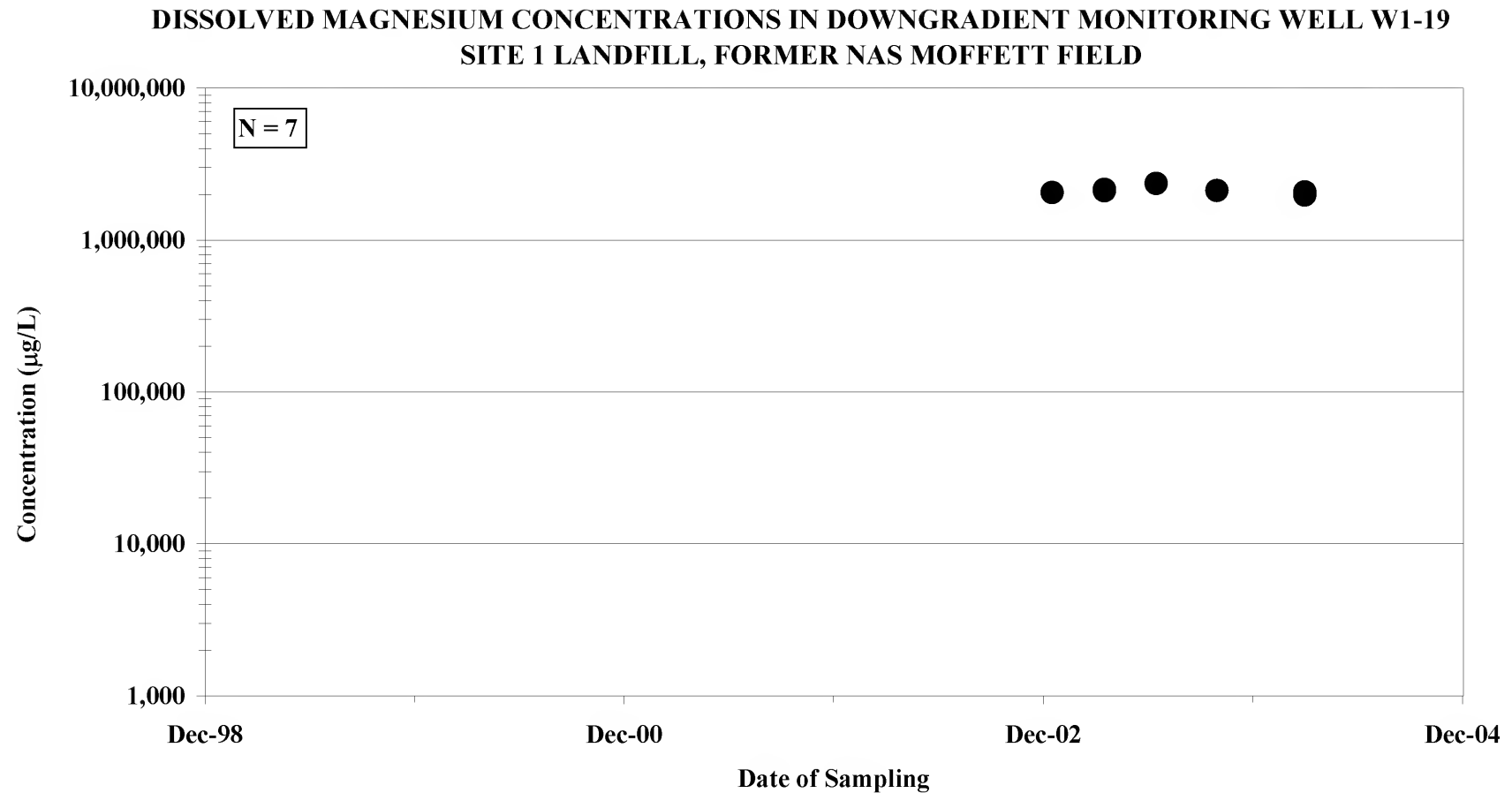
**DISSOLVED MAGNESIUM CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-16
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**



Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-85

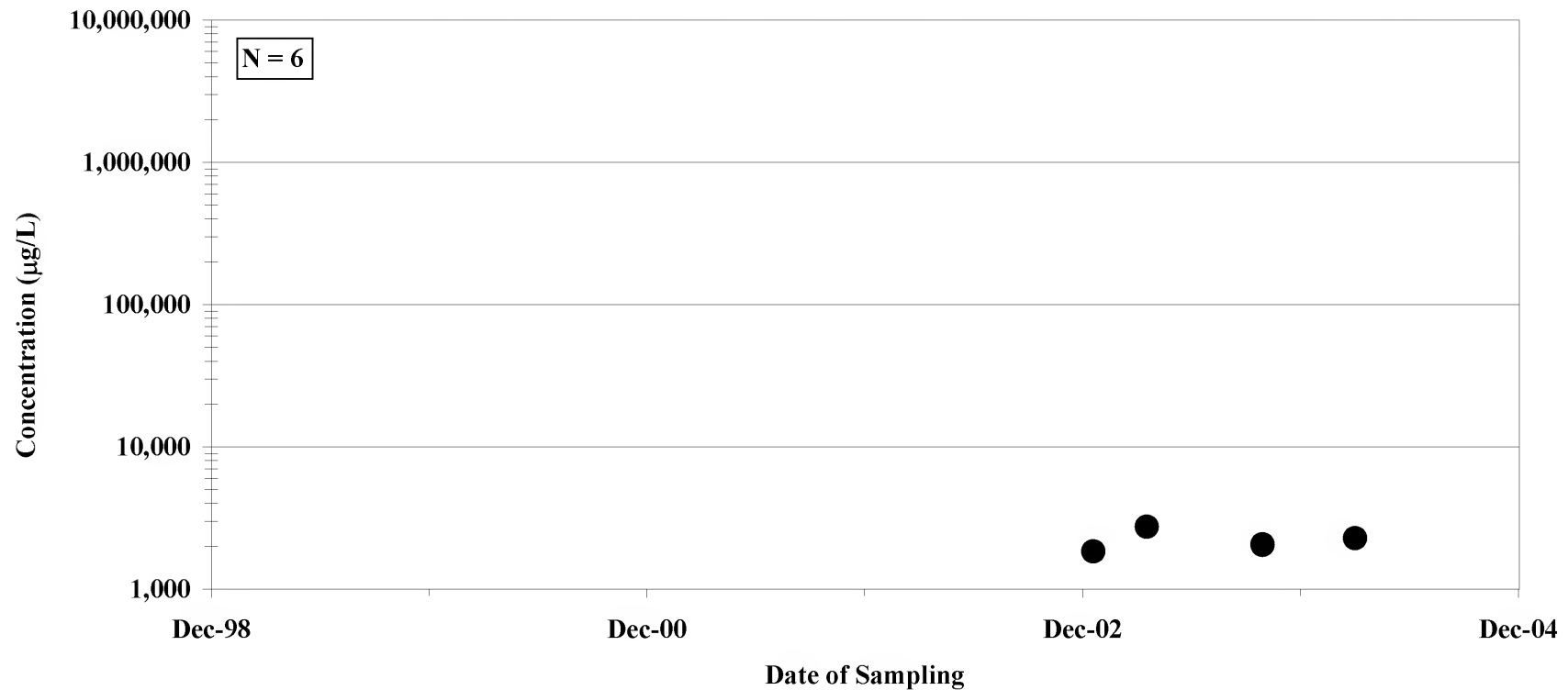


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-86

**DISSOLVED MAGNESIUM CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-24
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

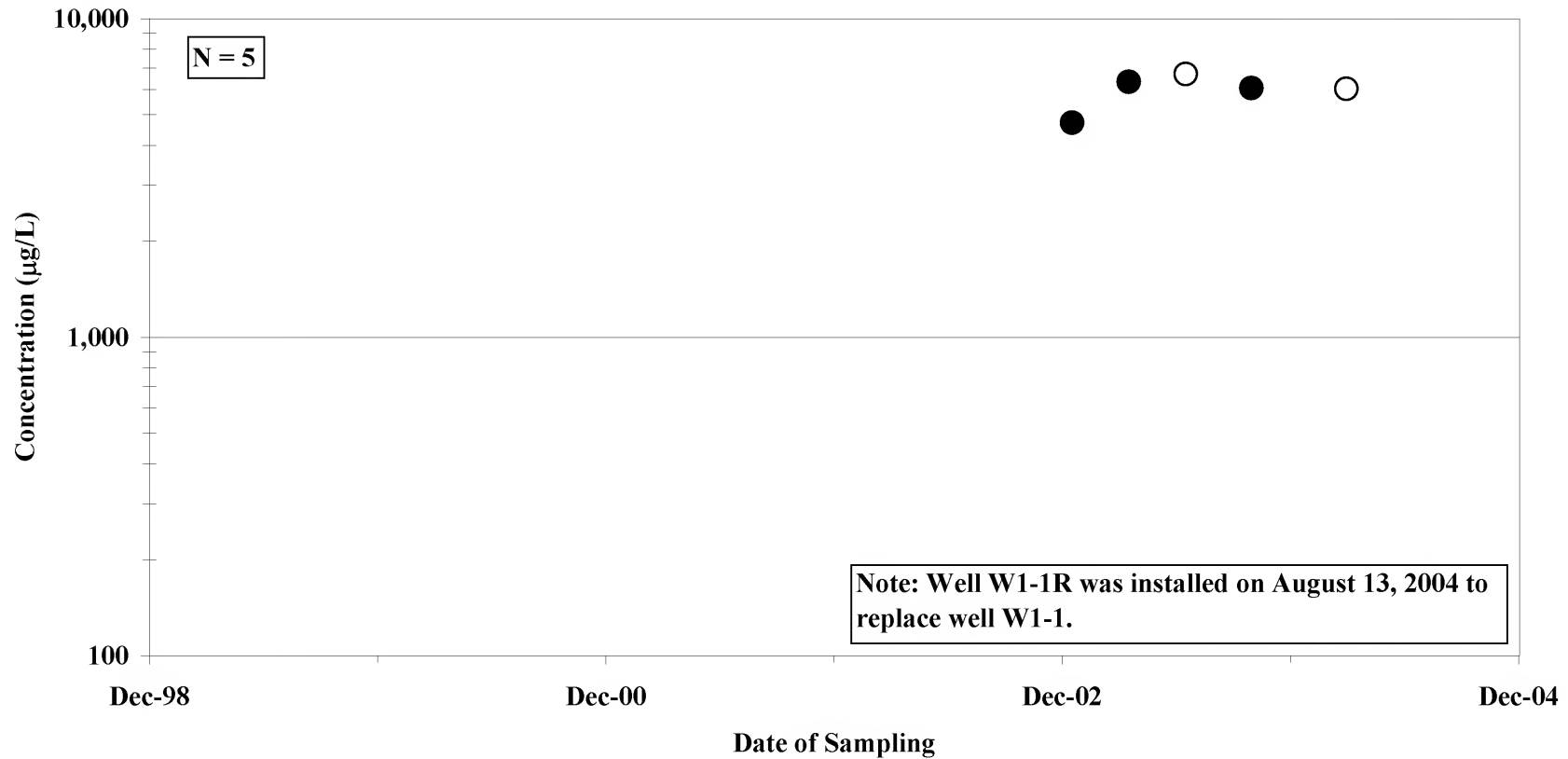


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-87

**DISSOLVED MANGANESE CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-1 / W1-1R
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

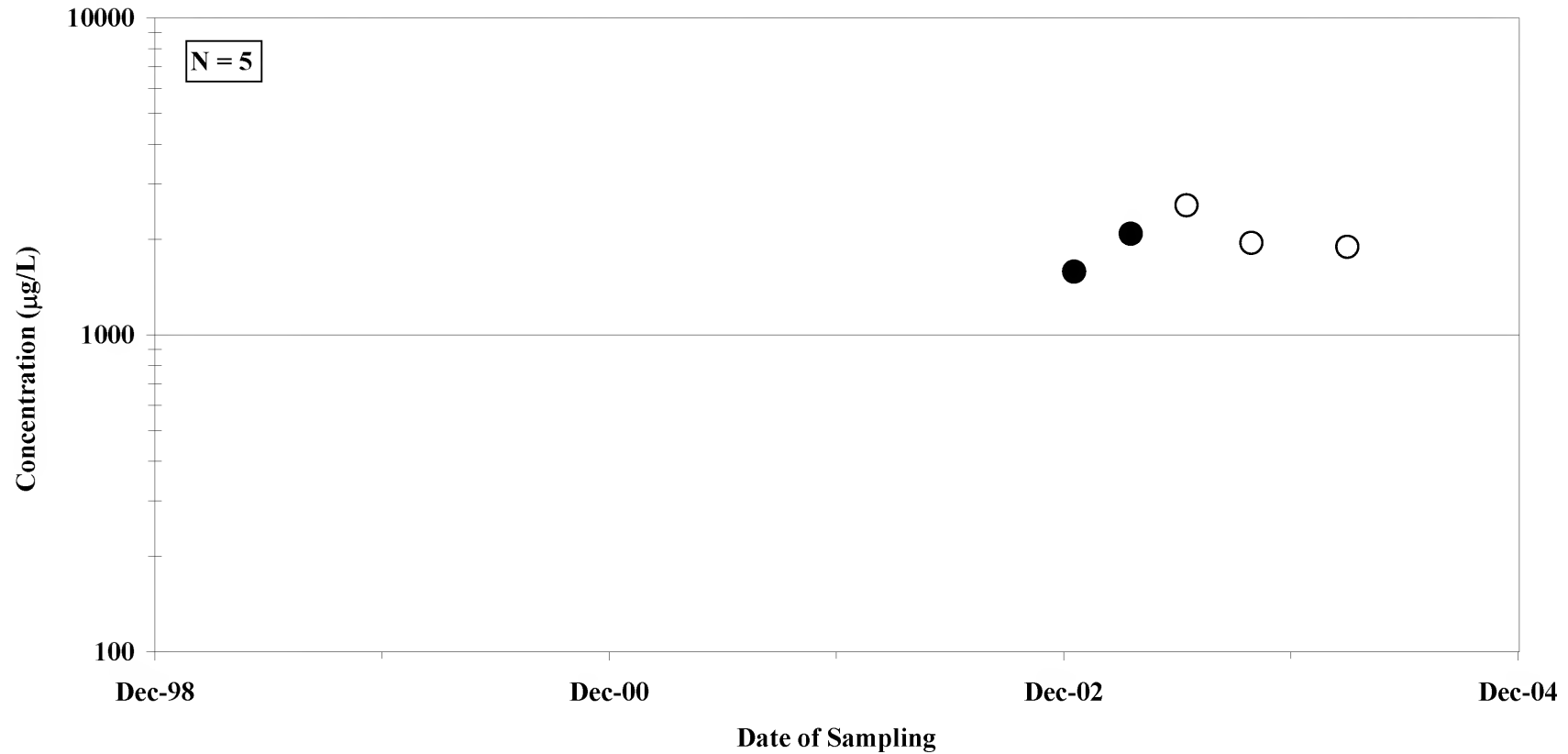


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-88

**DISSOLVED MANGANESE CONCENTRATIONS IN BACKGROUND MONITORING WELL W1-5
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

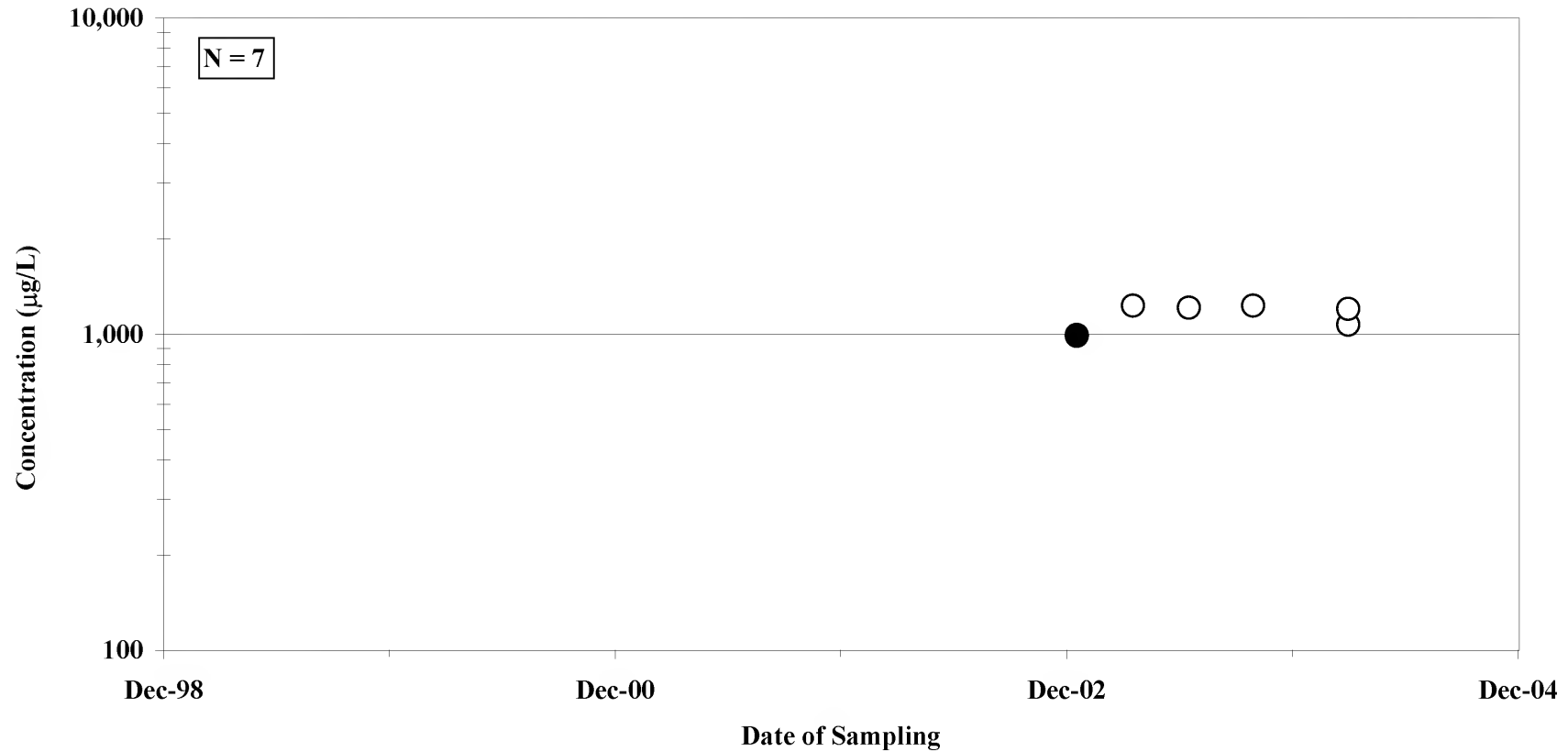


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-89

**DISSOLVED MANGANESE CONCENTRATIONS IN BACKGROUND MONITORING WELL W1-8
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

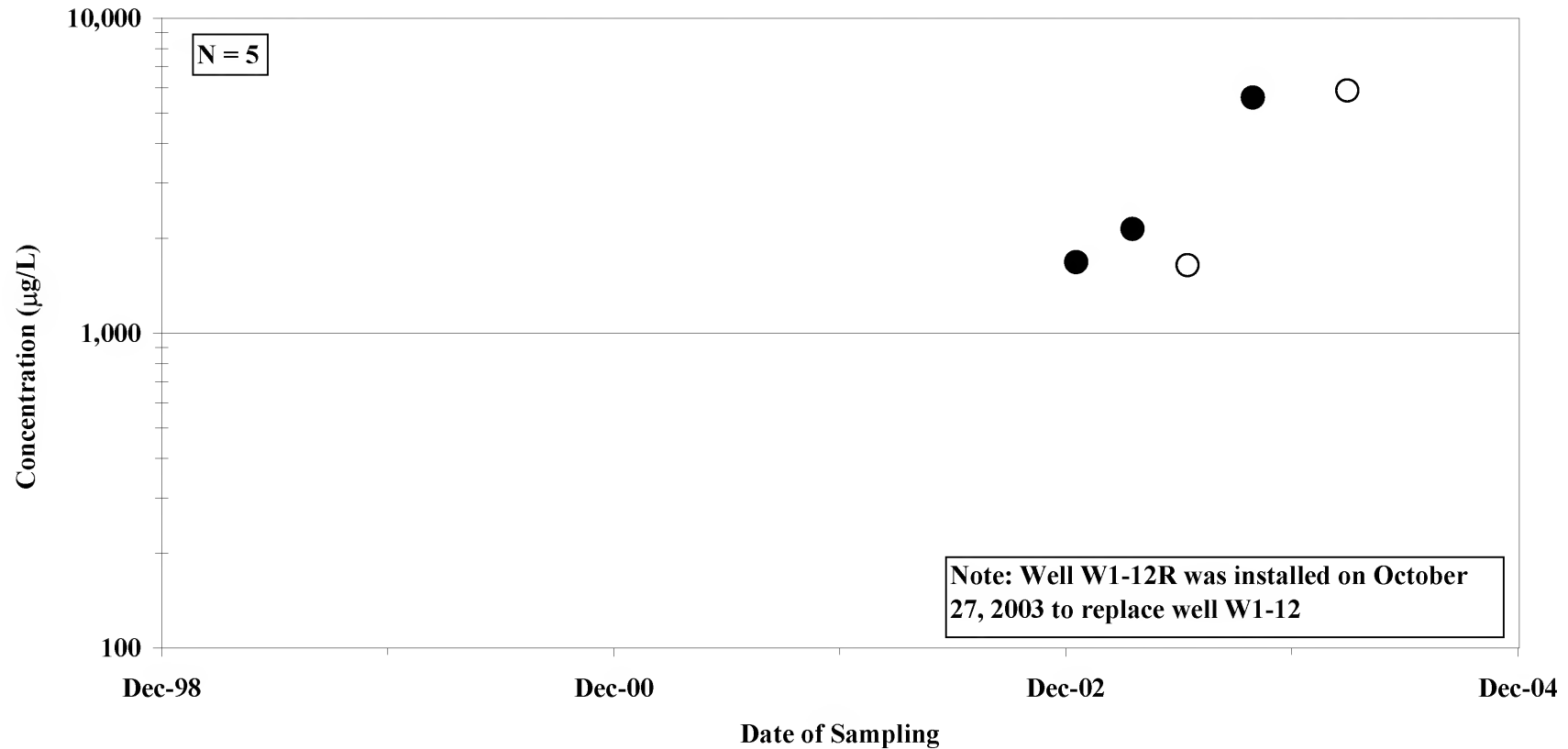


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-90

**DISSOLVED MANGANESE CONCENTRATIONS IN BACKGROUND MONITORING WELL W1-12 / W1-12R
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

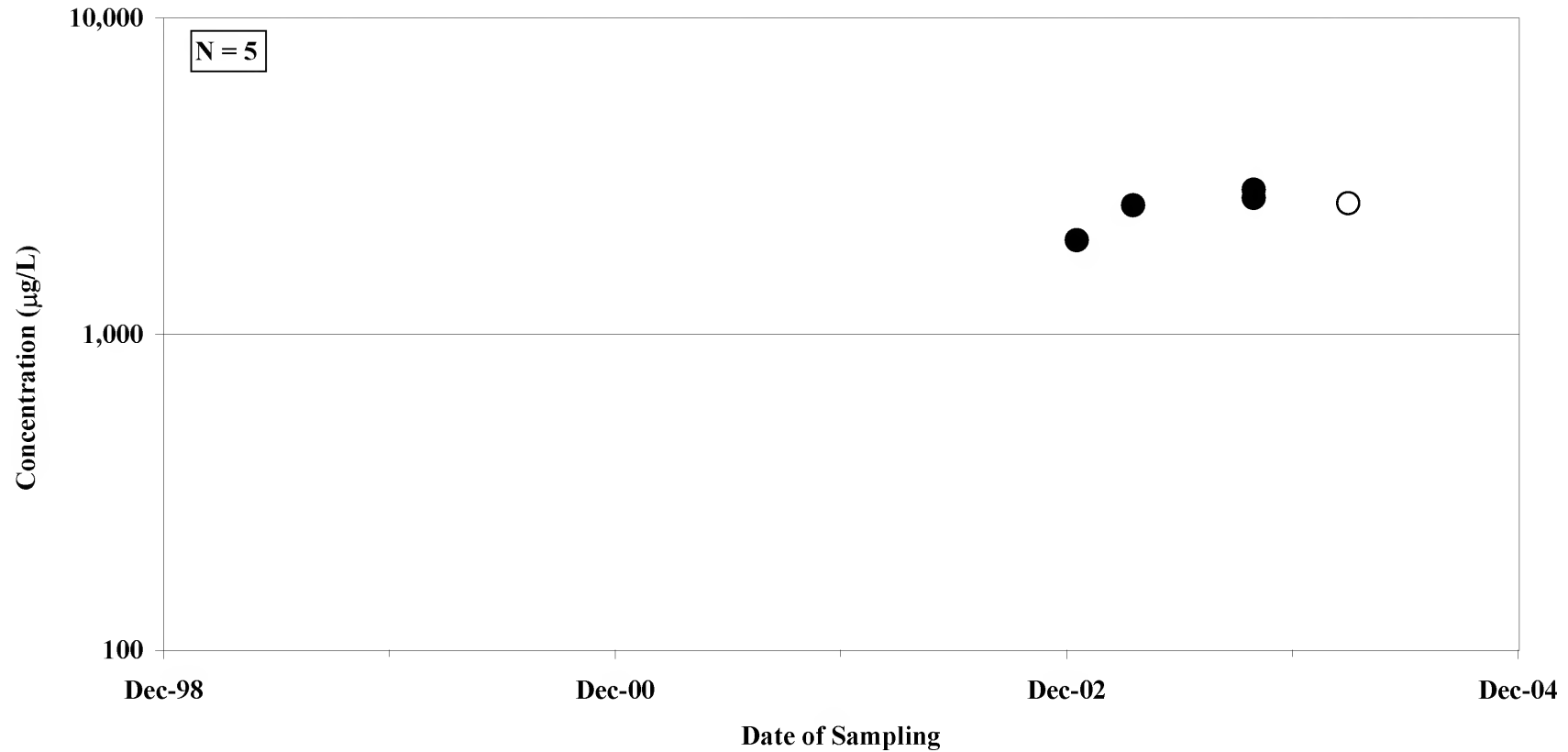


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-91

**DISSOLVED MANGANESE CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-14
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

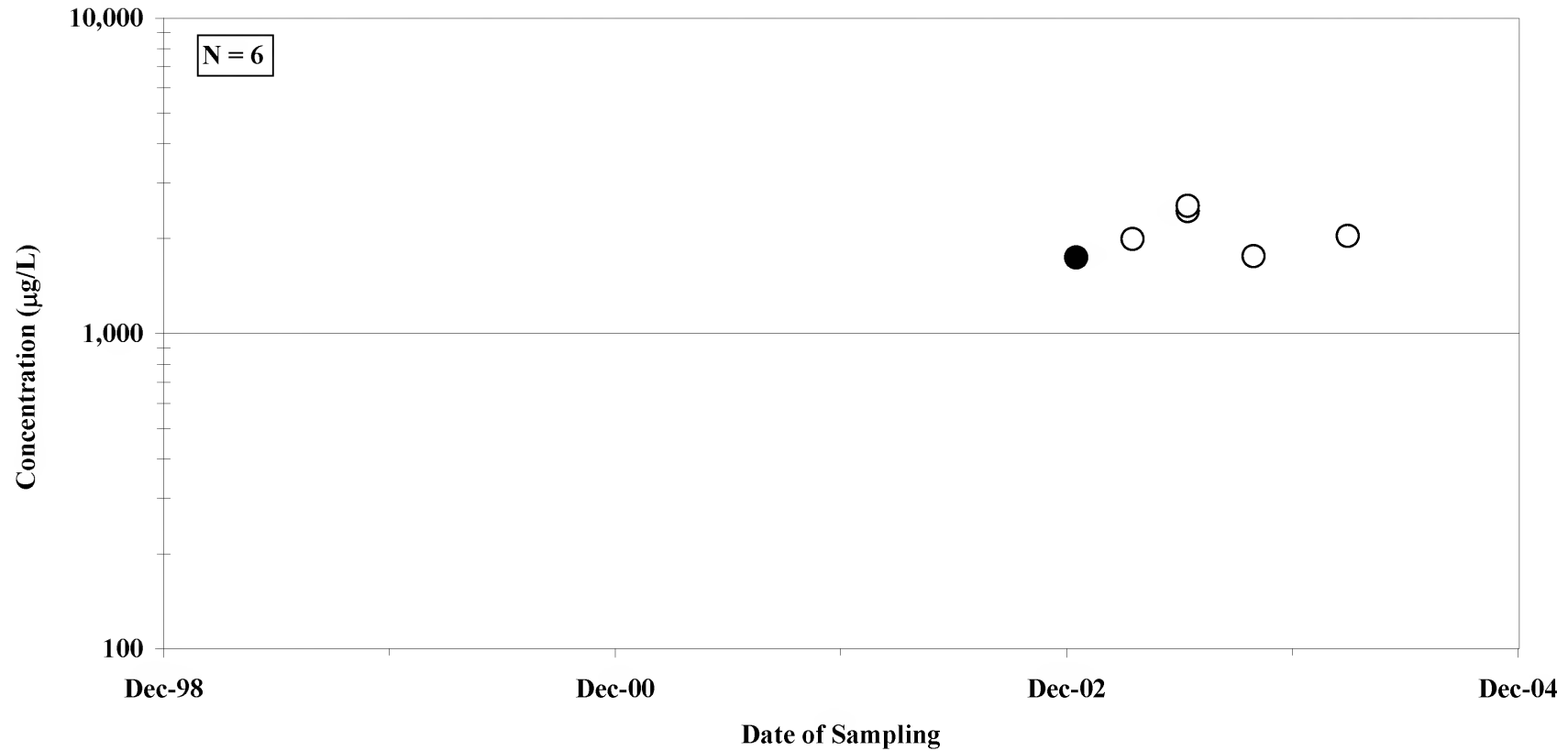


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-92

**DISSOLVED MANGANESE CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-15
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

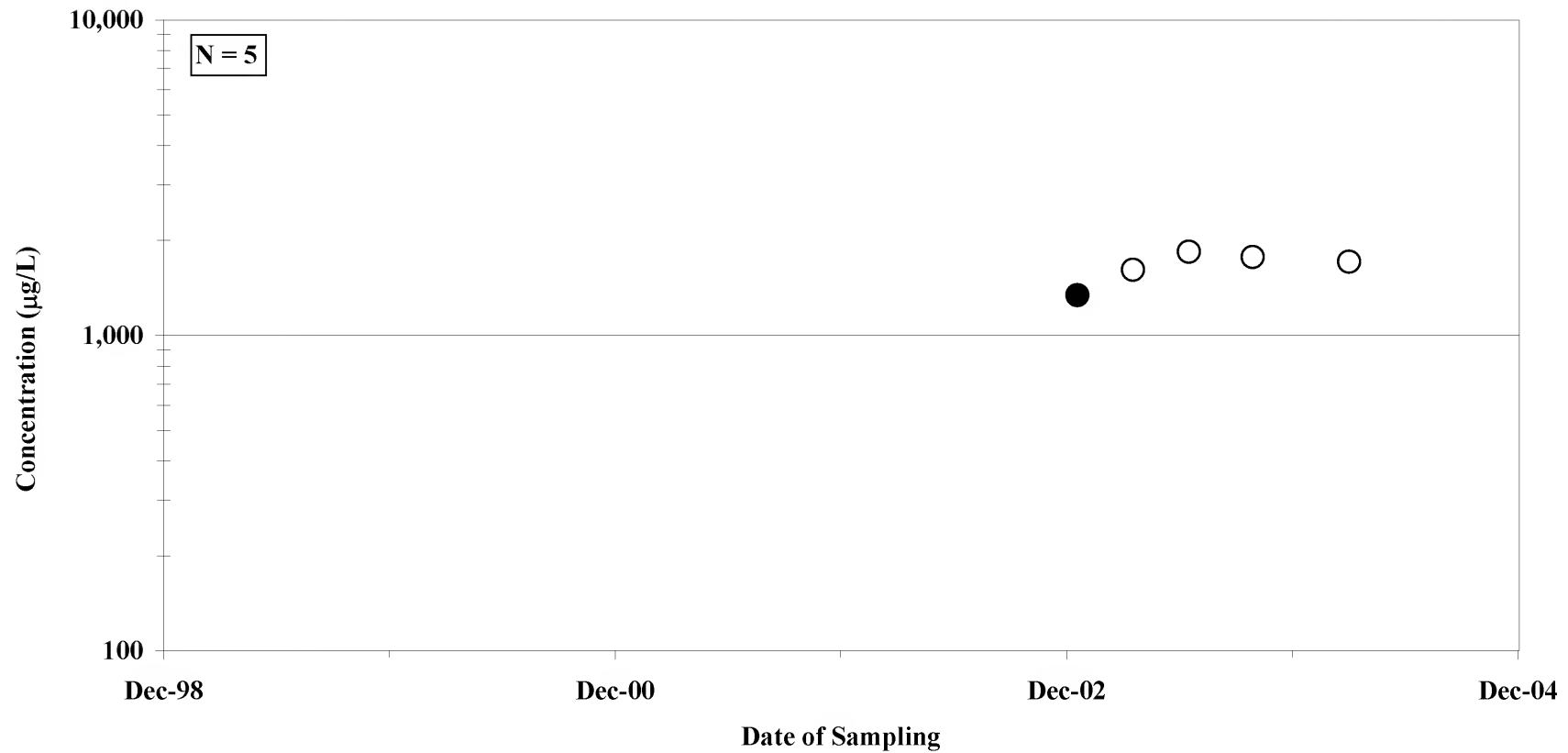


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-93

**DISSOLVED MANGANESE CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-16
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

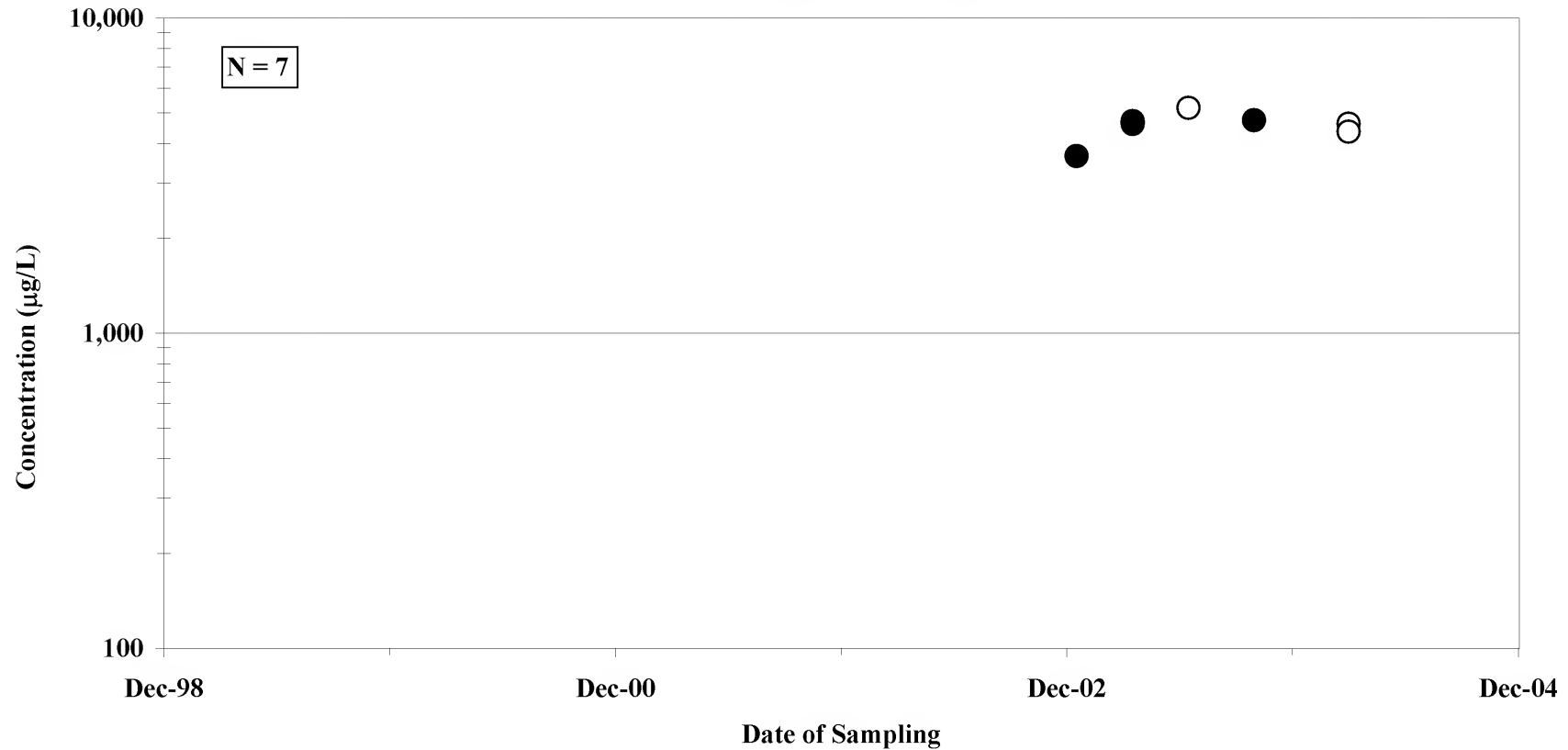


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-94

**DISSOLVED MANGANESE CONCENTRATIONS IN DOWNGRADIENT MONITORING WELL W1-19
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

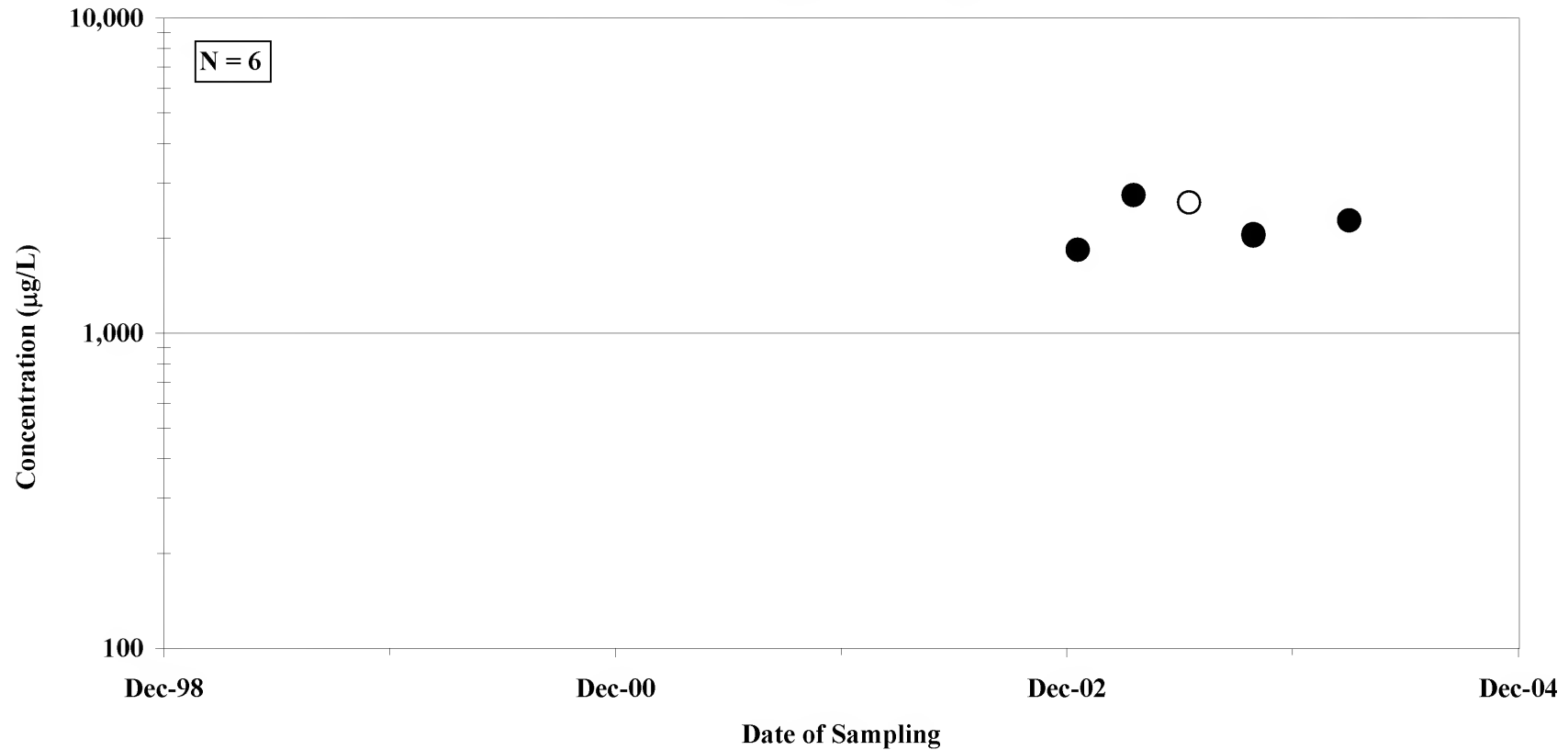


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-95

**DISSOLVED MANGANESE CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-24
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

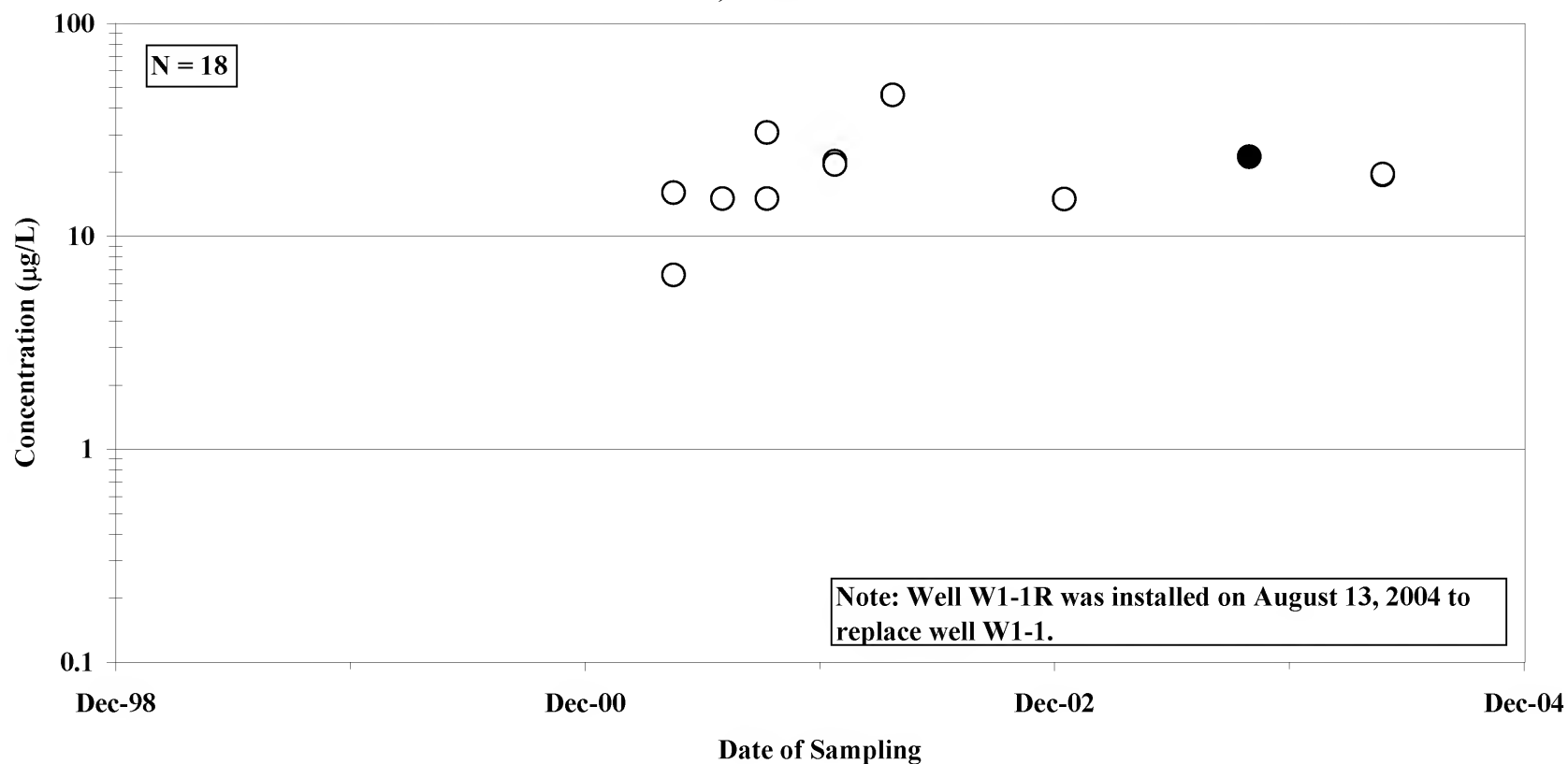


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-96

**DISSOLVED NICKEL CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-1 / W1-1R
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

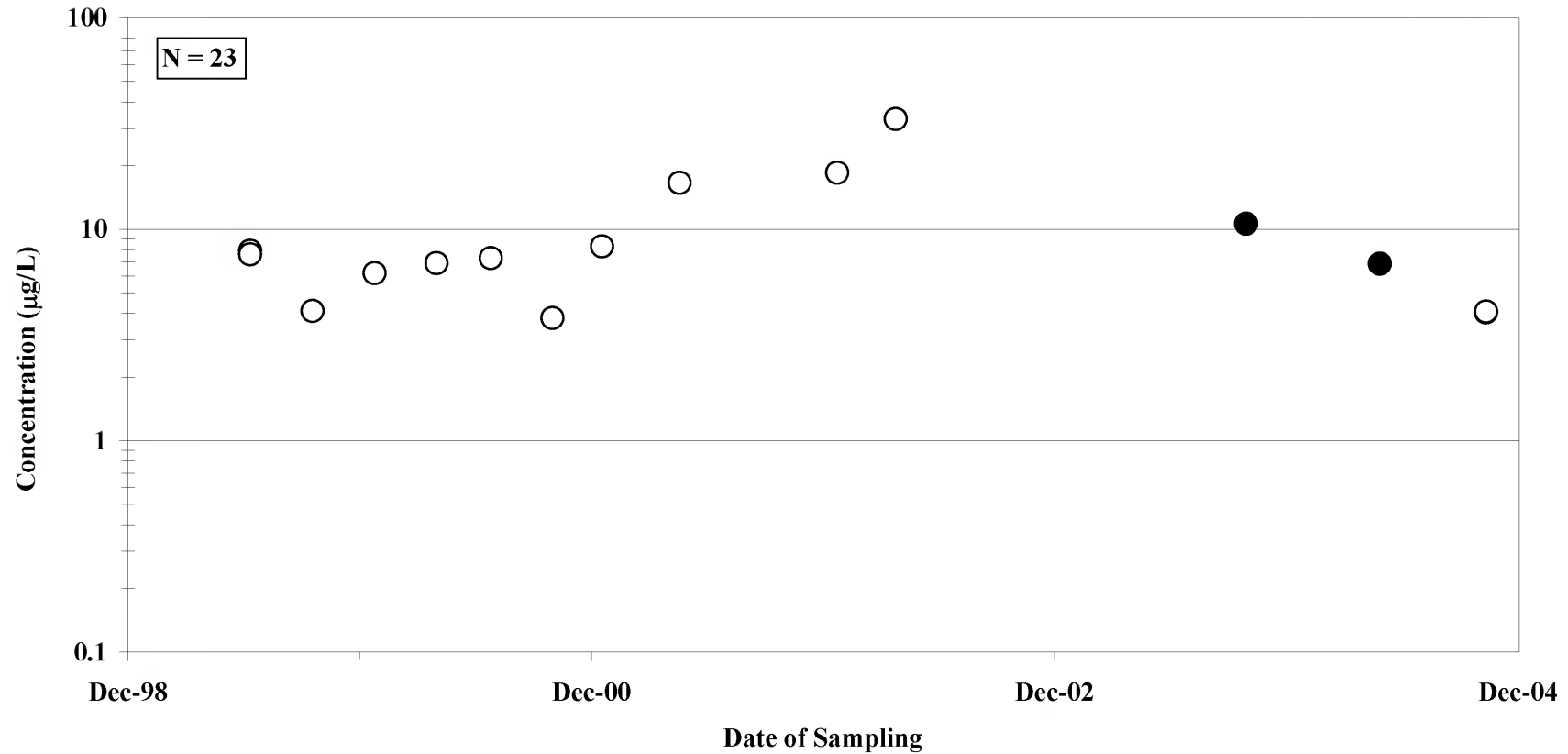


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-97

**DISSOLVED ANTIMONY CONCENTRATIONS IN BACKGROUND MONITORING WELL W1-5
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**



Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

**DISSOLVED NICKEL CONCENTRATIONS IN BACKGROUND MONITORING WELL W1-8
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

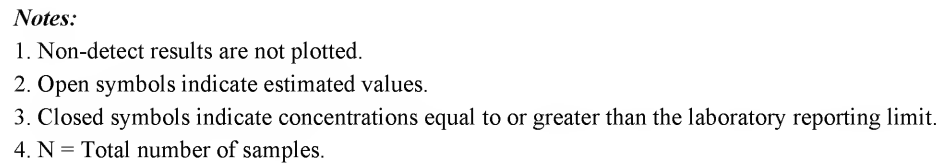
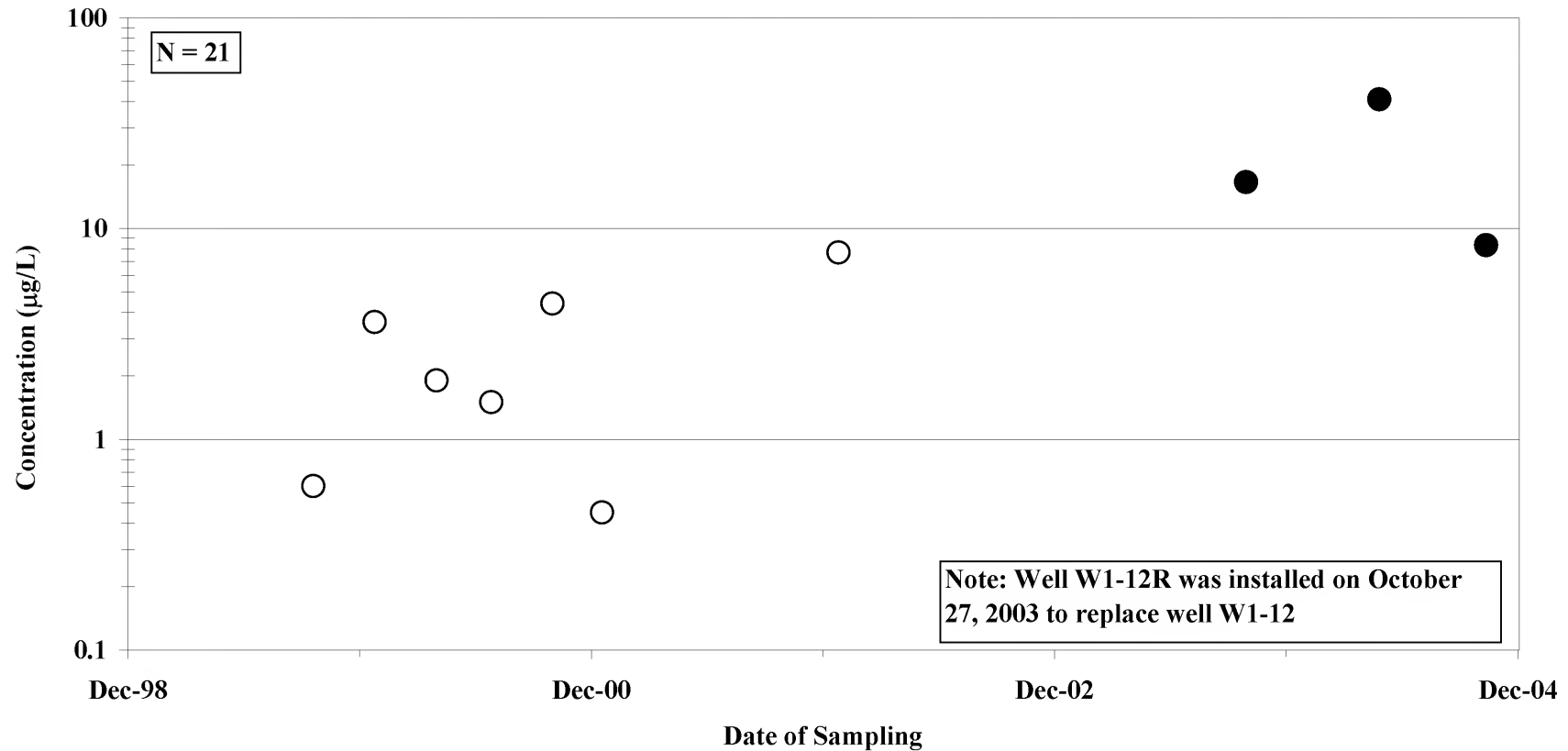


FIGURE E-99

**DISSOLVED NICKEL CONCENTRATIONS IN BACKGROUND MONITORING WELL W1-12 / W1-12R
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**



Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

**DISSOLVED NICKEL CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-14
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

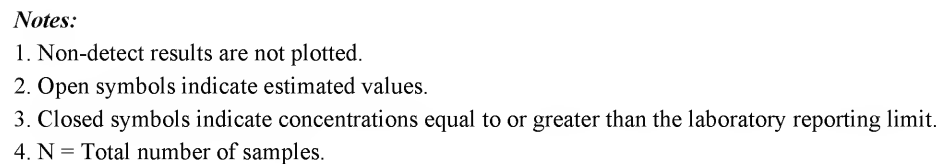
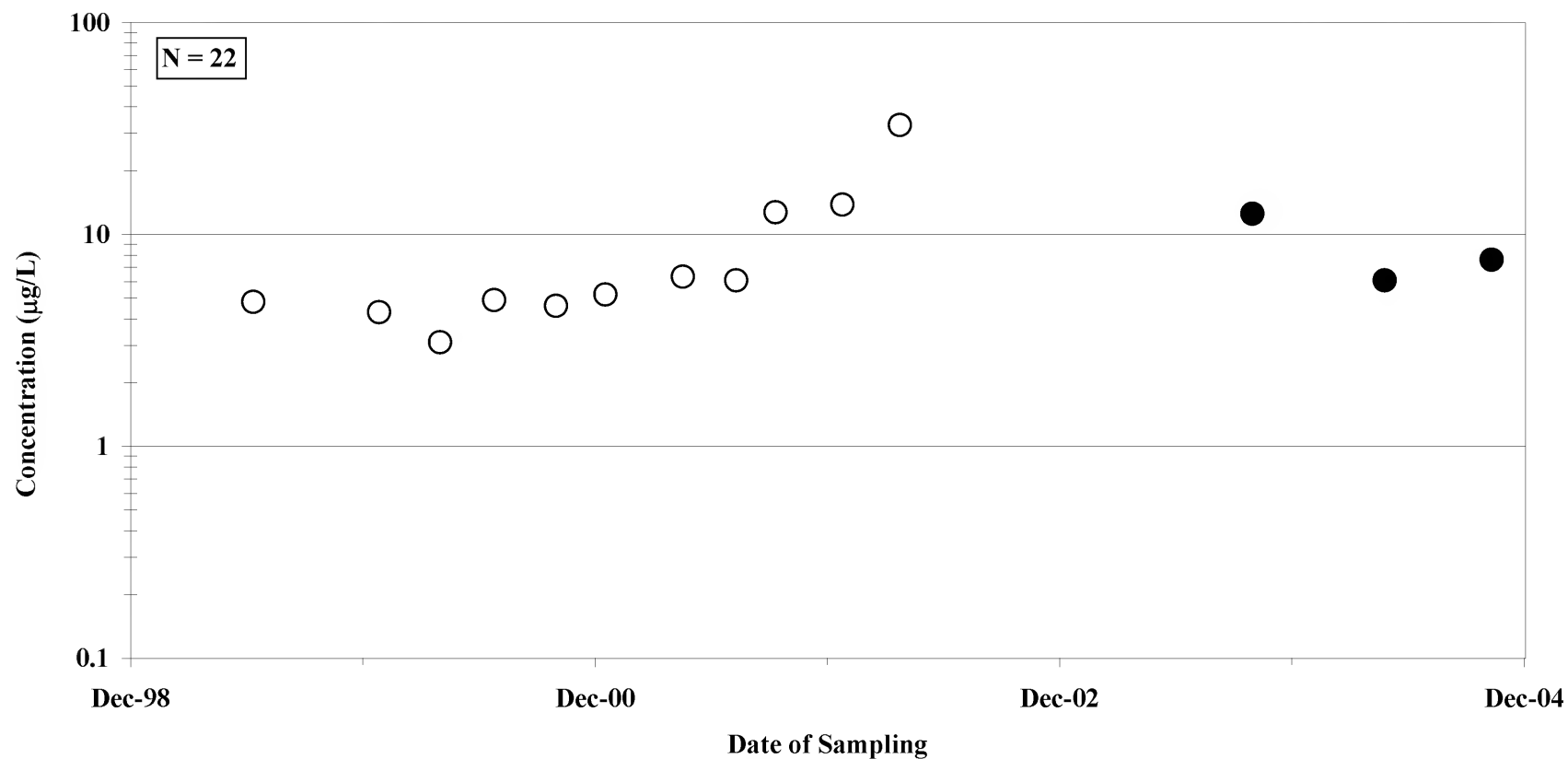


FIGURE E-101

**DISSOLVED NICKEL CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-15
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

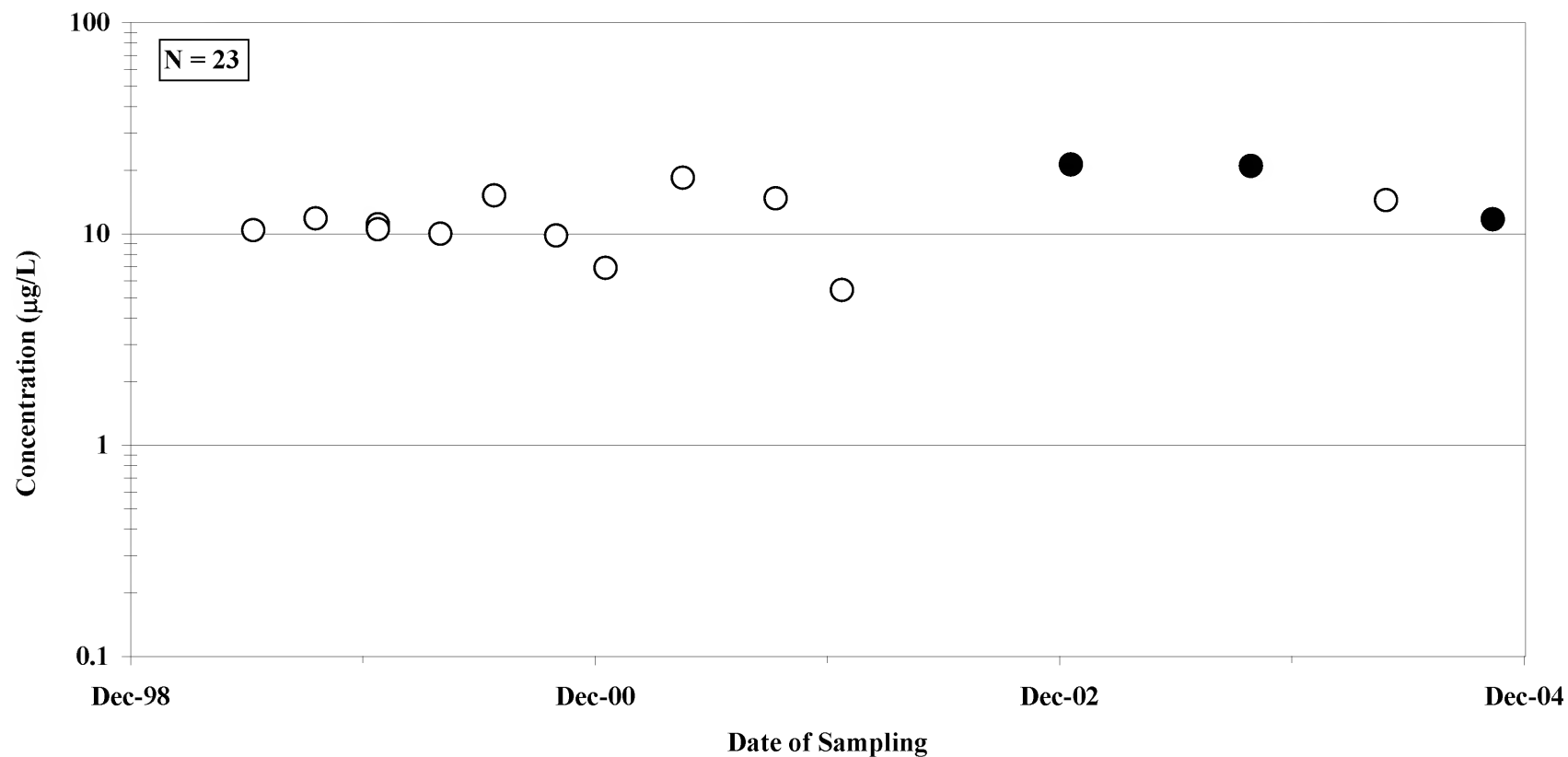


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-102

**DISSOLVED NICKEL CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-16
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

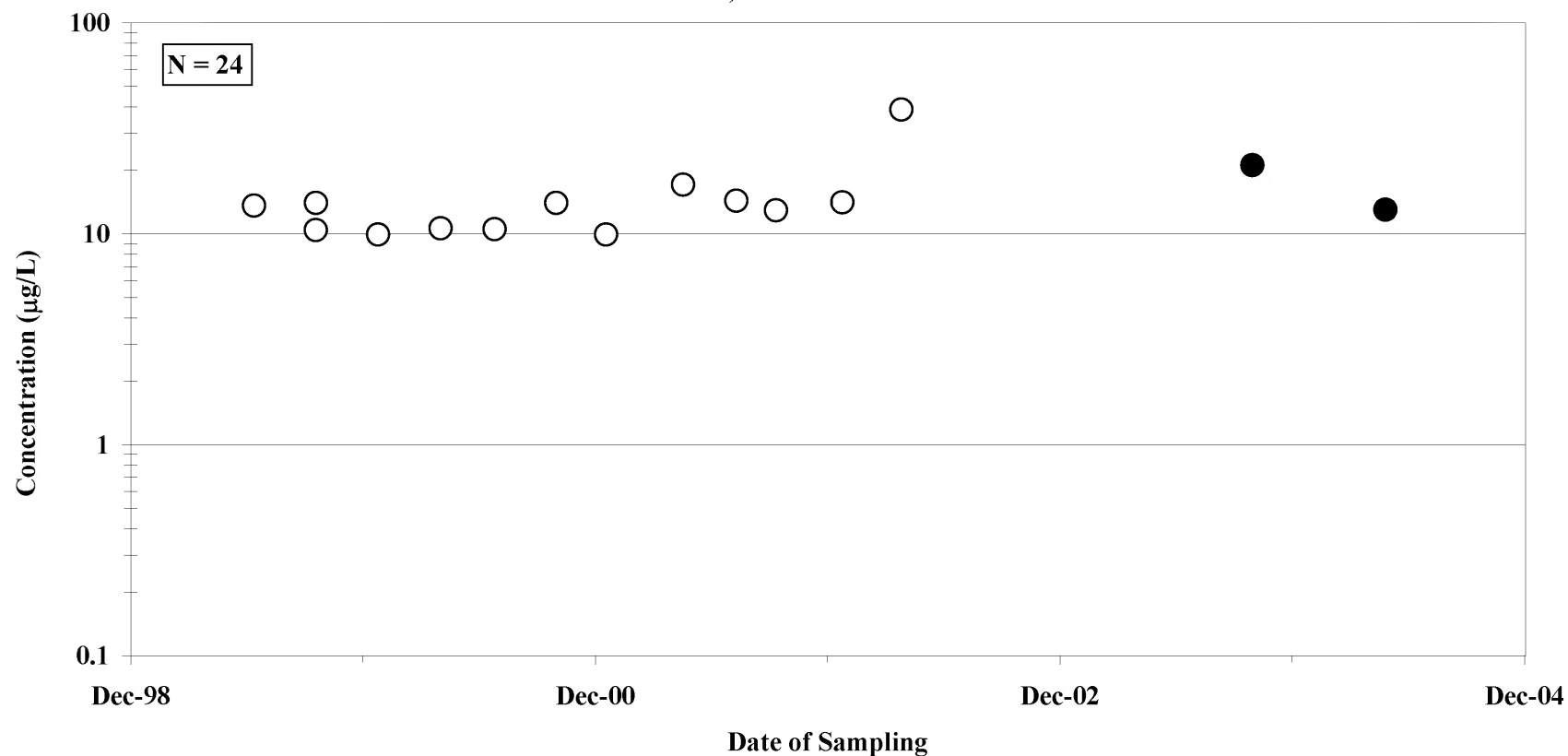


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-103

**DISSOLVED NICKEL CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-19
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

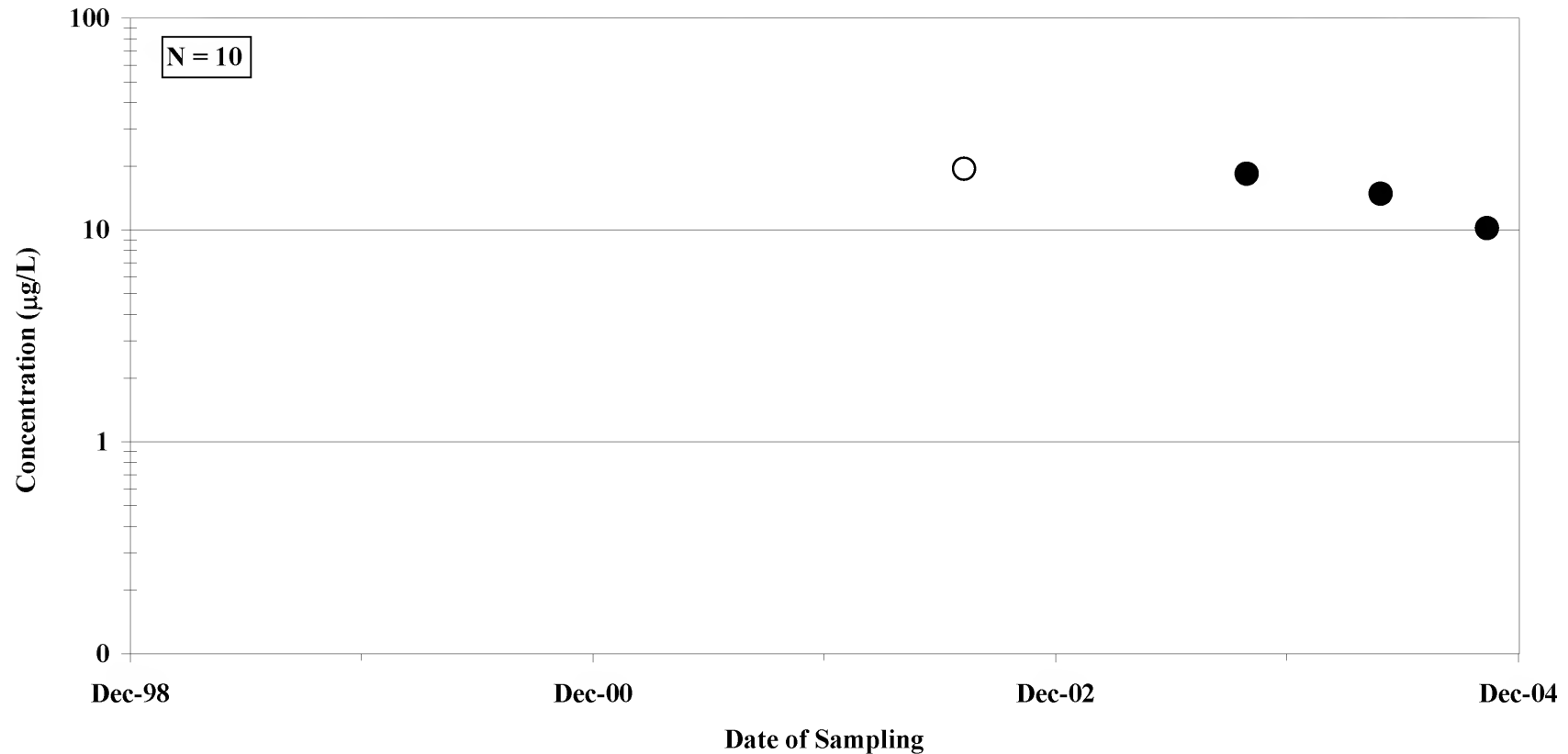


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-104

**DISSOLVED NICKEL CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-24
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

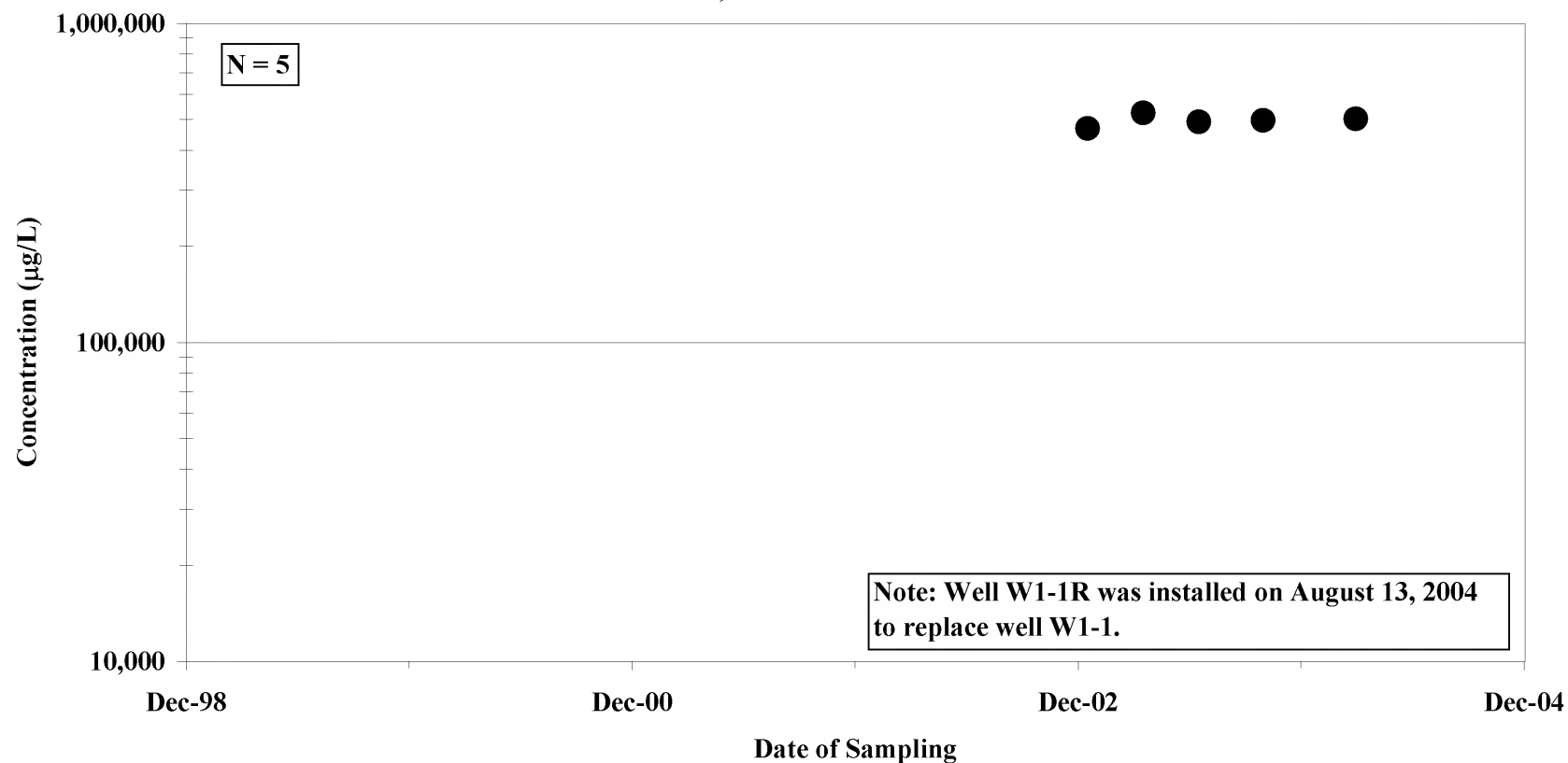


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-105

**DISSOLVED POTASSIUM CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-1 / W1-1R
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

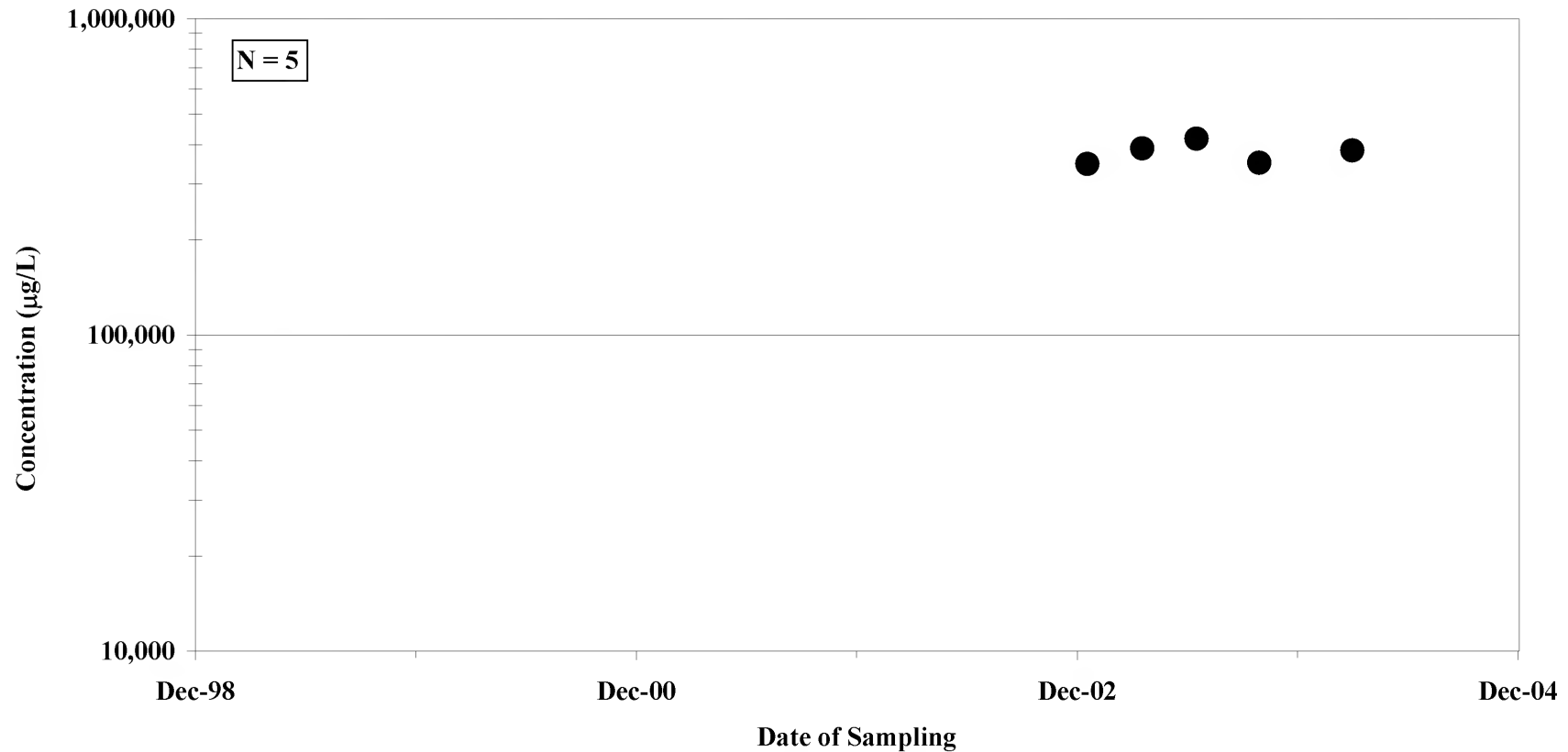


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-106

**DISSOLVED POTASSIUM CONCENTRATIONS IN BACKGROUND MONITORING WELL W1-5
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

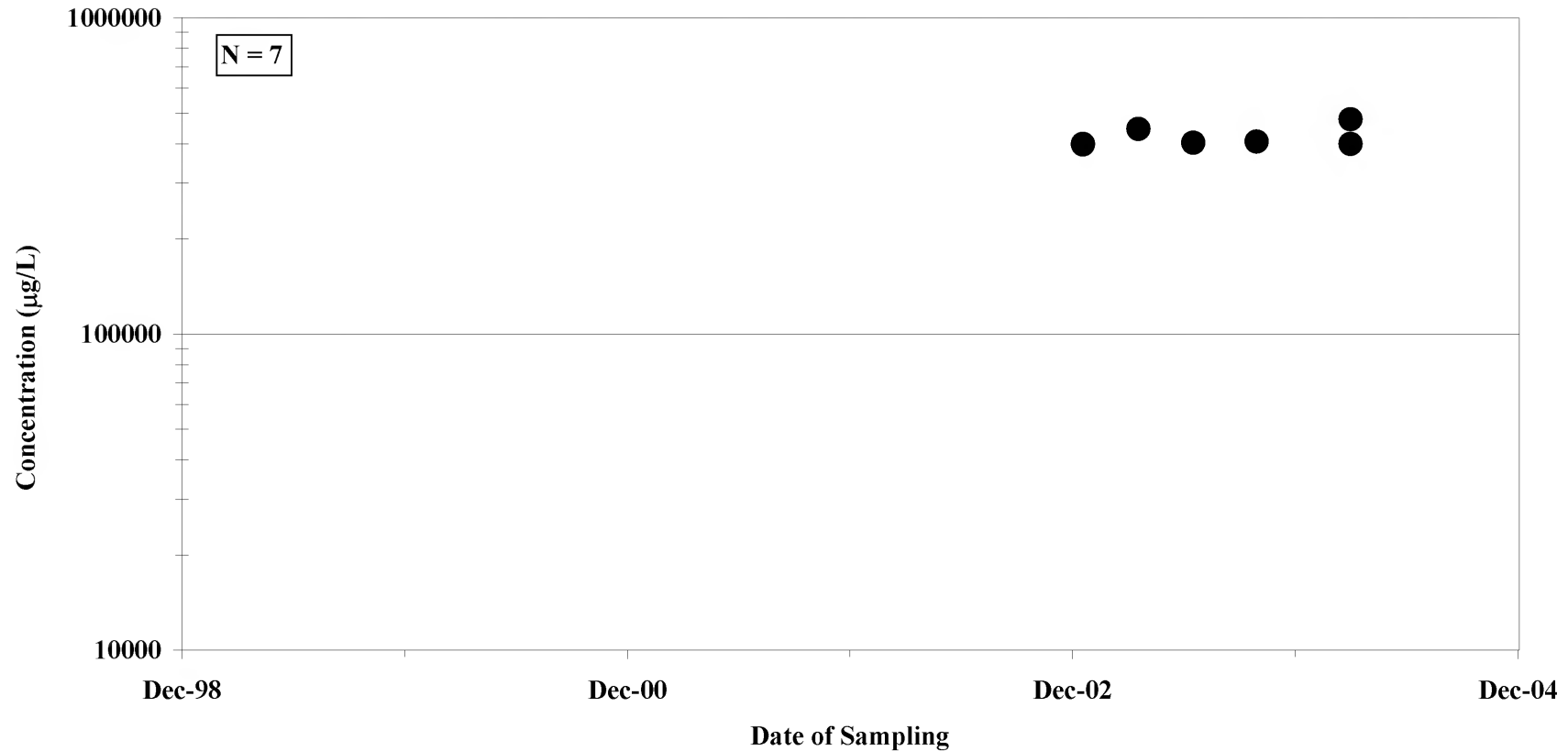


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-107

**DISSOLVED POTASSIUM CONCENTRATIONS IN BACKGROUND MONITORING WELL W1-8
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

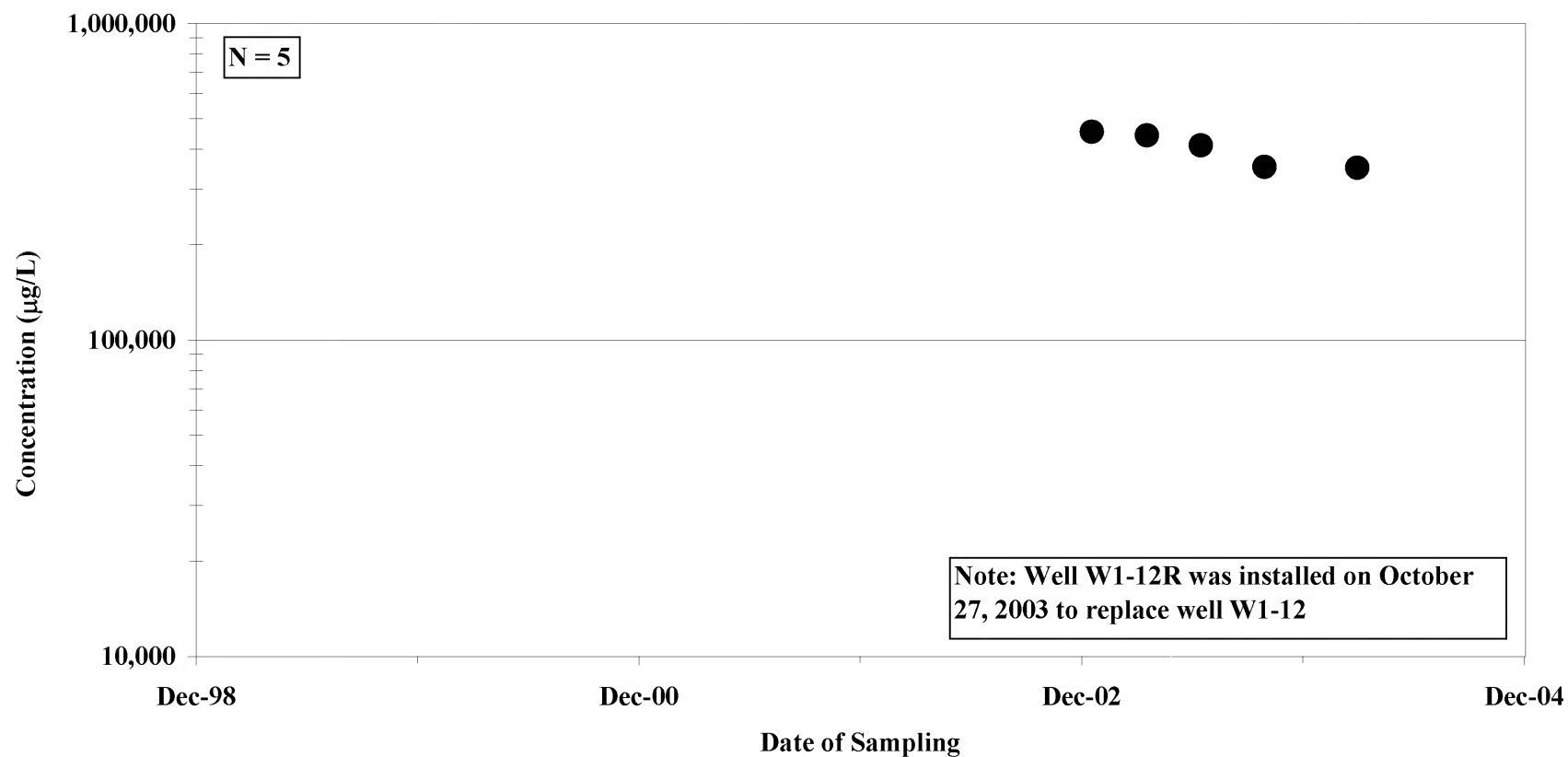


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-108

**DISSOLVED POTASSIUM CONCENTRATIONS IN BACKGROUND MONITORING WELL W1-12 / W1-12R
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

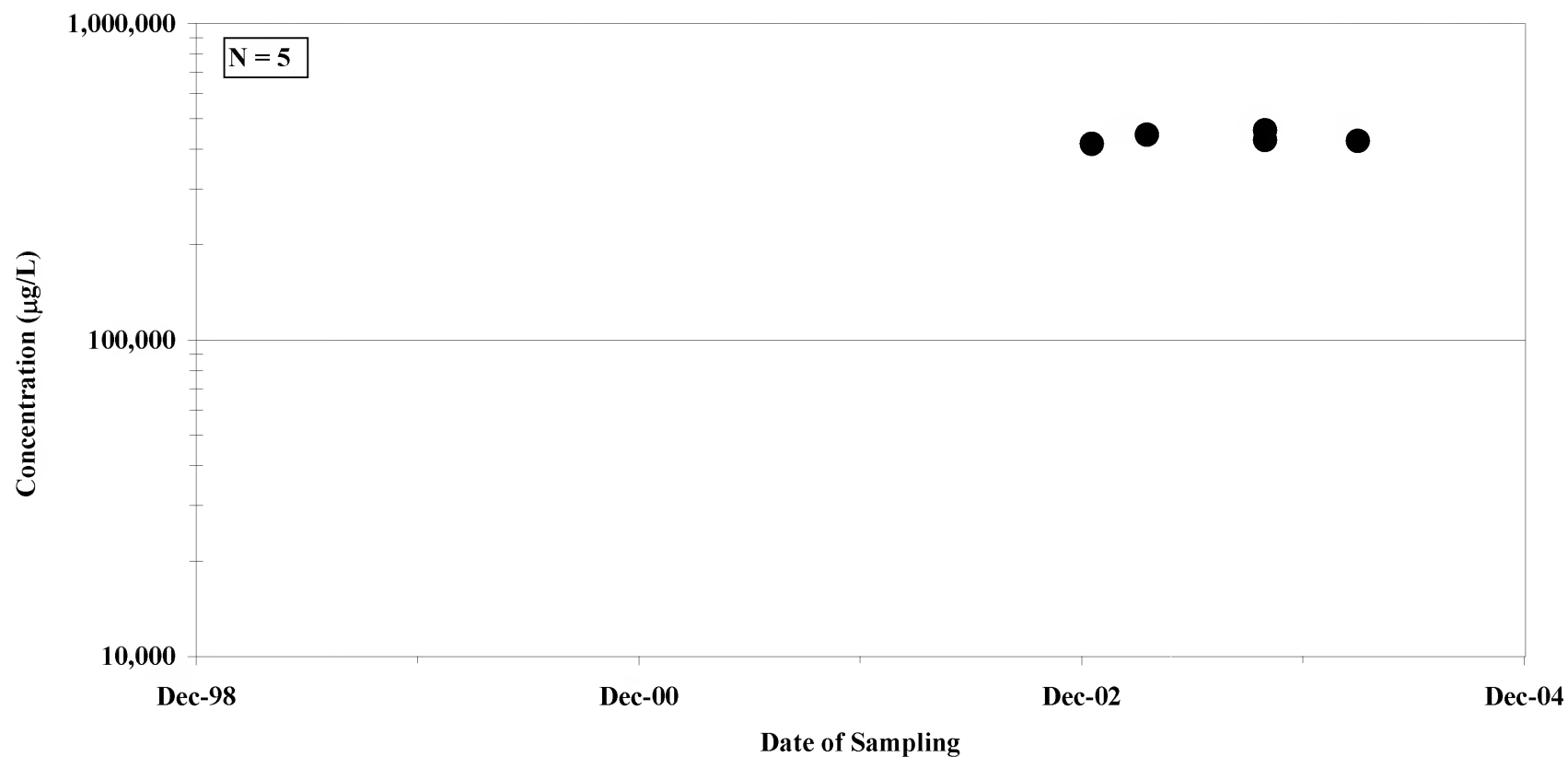


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-109

**DISSOLVED POTASSIUM CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-14
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

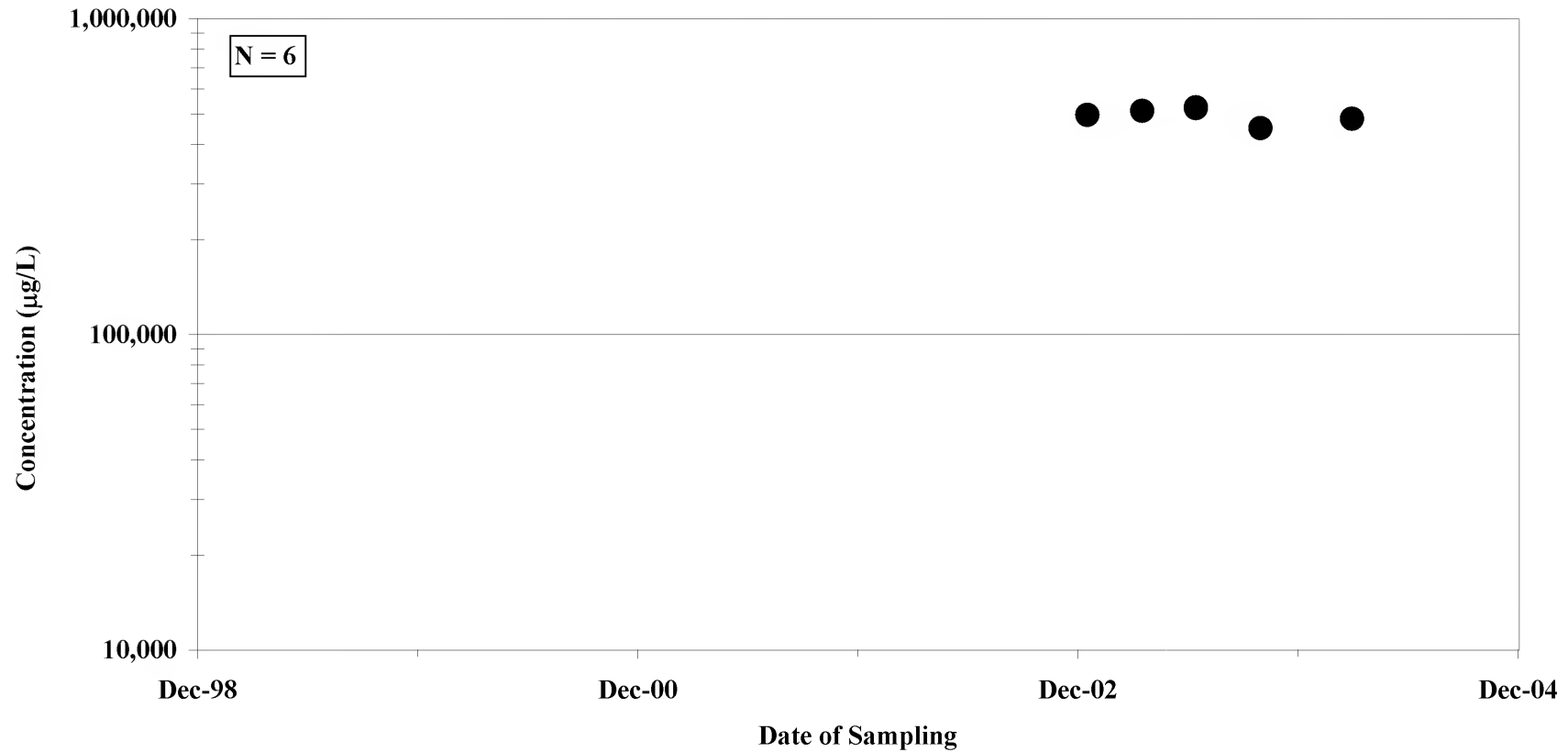


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-110

**DISSOLVED POTASSIUM CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-15
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

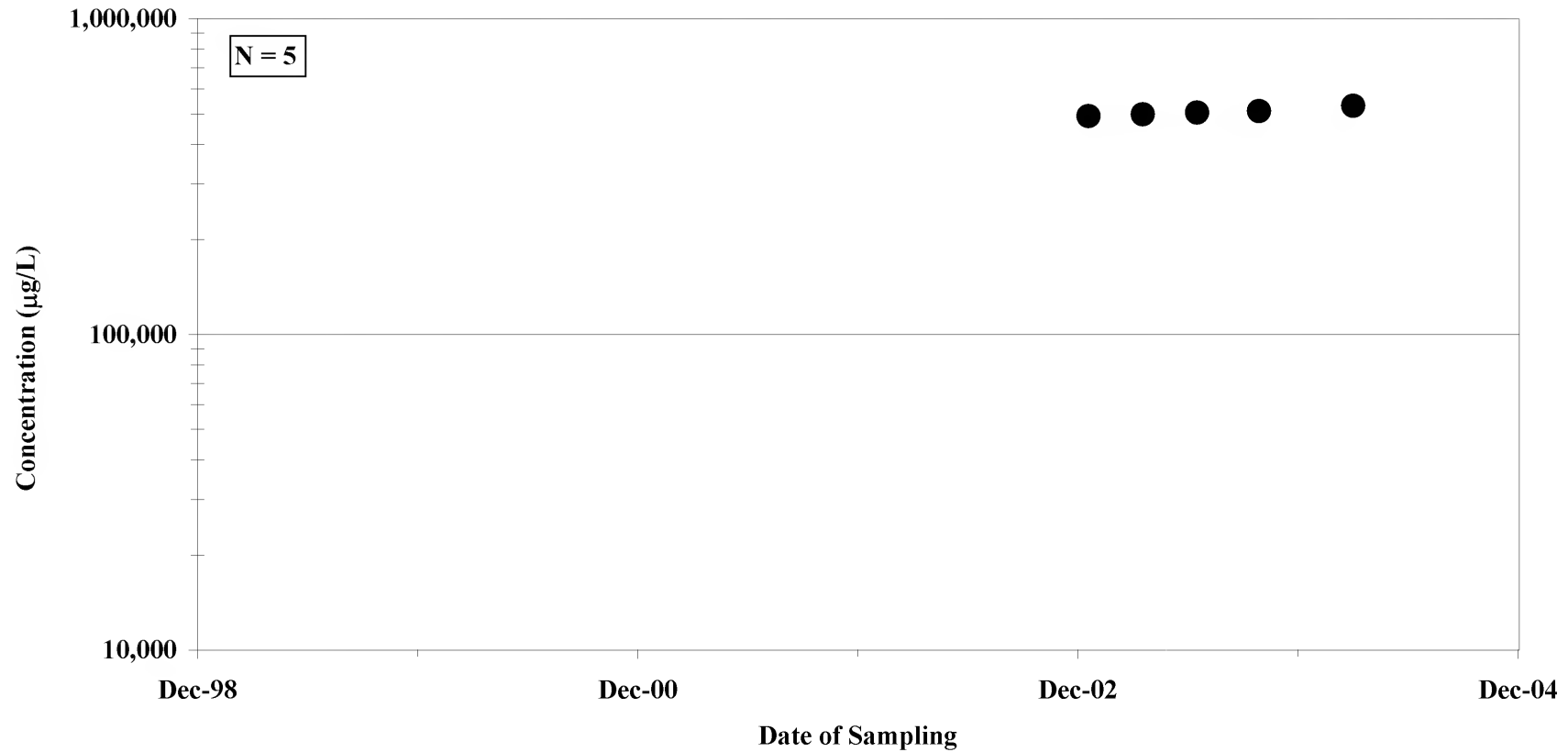


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-111

**DISSOLVED POTASSIUM CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-16
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

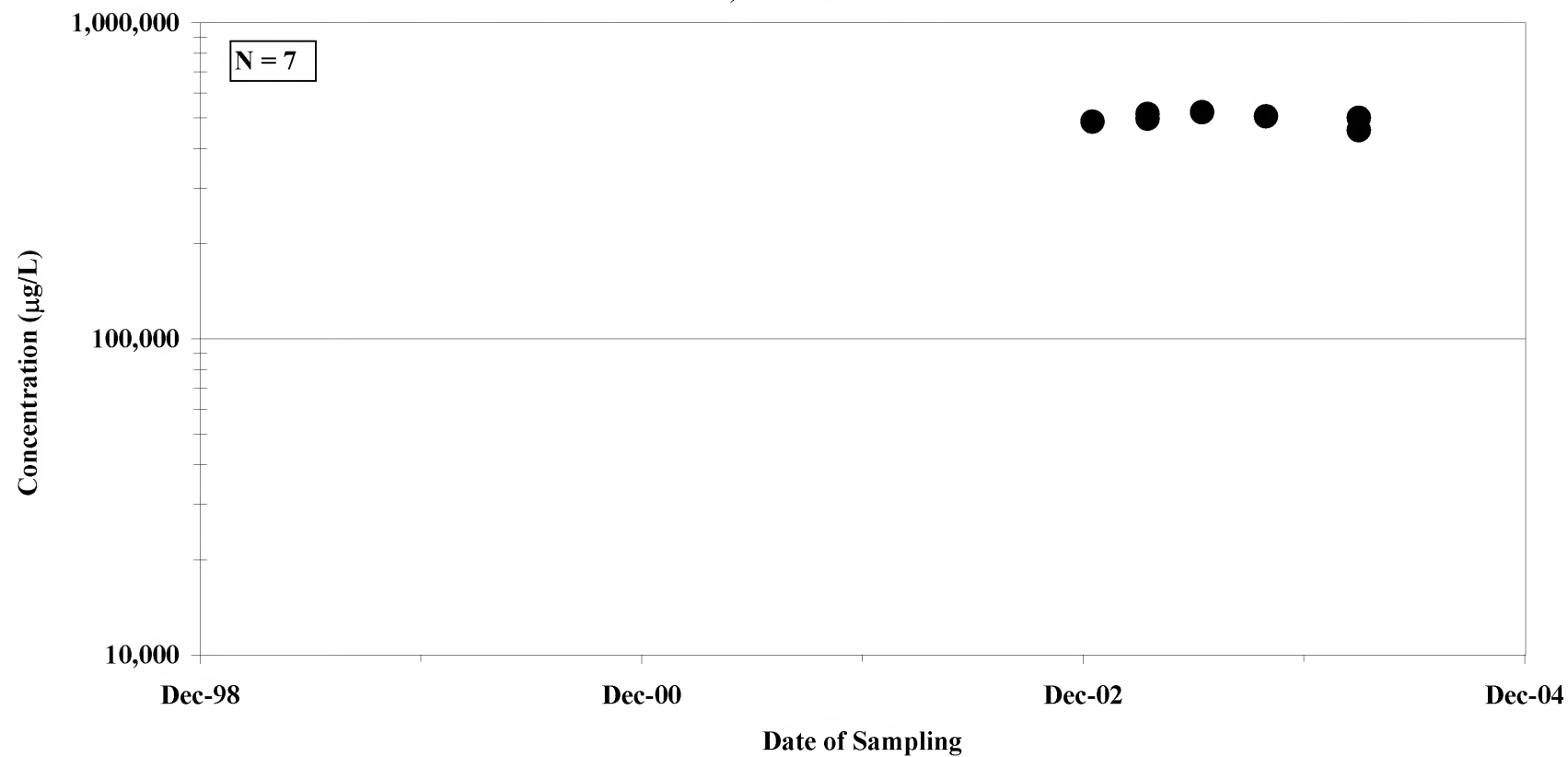


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-112

**DISSOLVED POTASSIUM CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-19
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

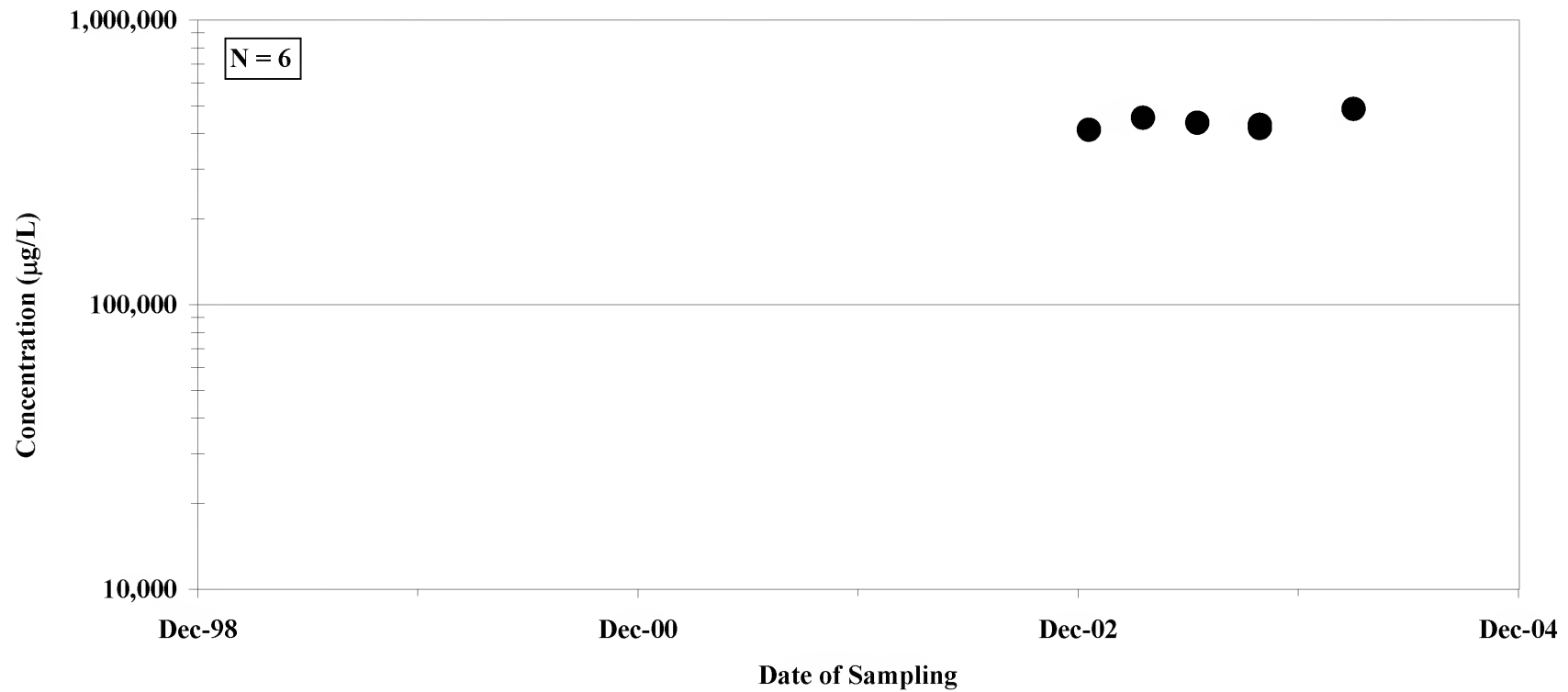


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-113

**DISSOLVED POTASSIUM CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-24
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

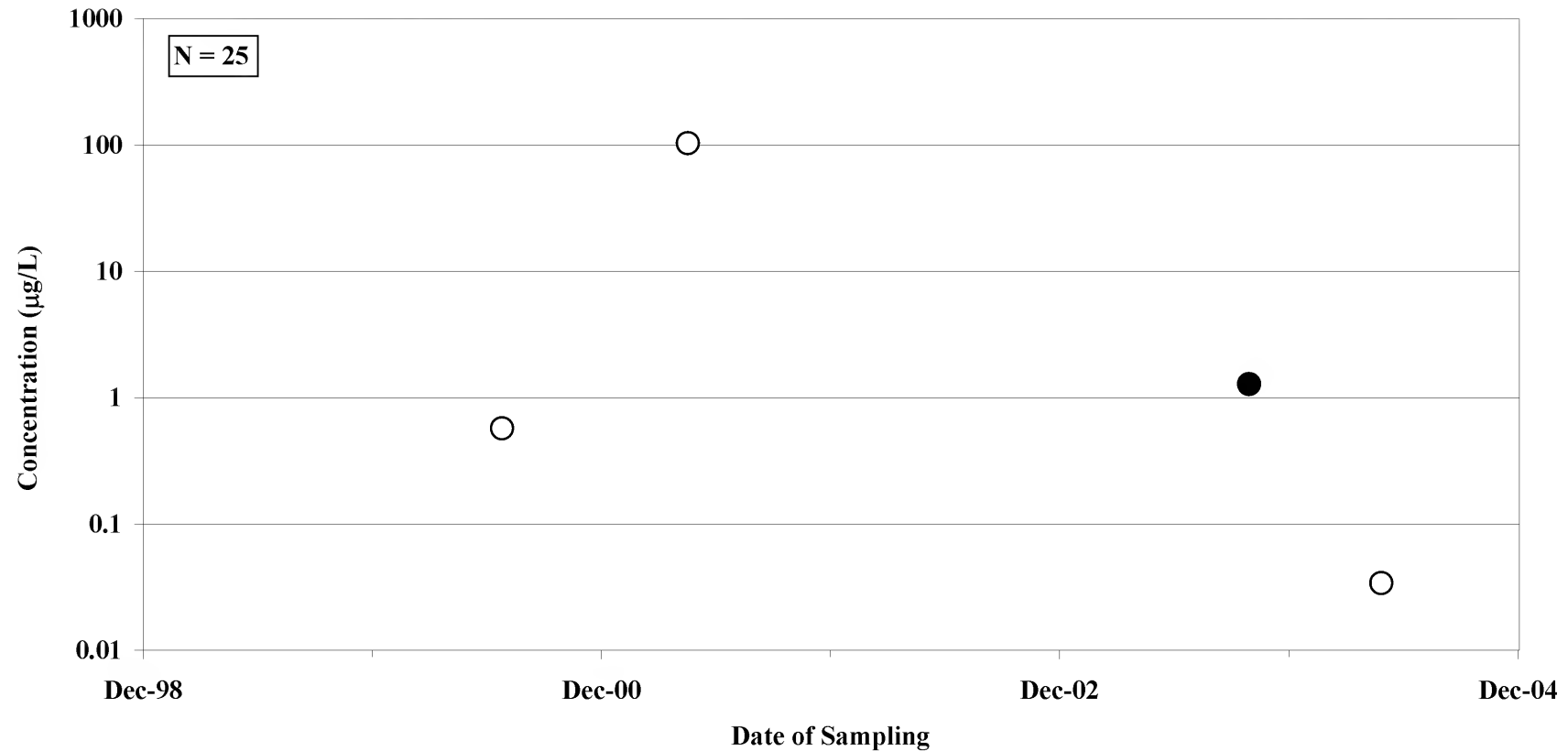


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-114

**DISSOLVED SILVER CONCENTRATIONS IN BACKGROUND MONITORING WELL W1-8
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

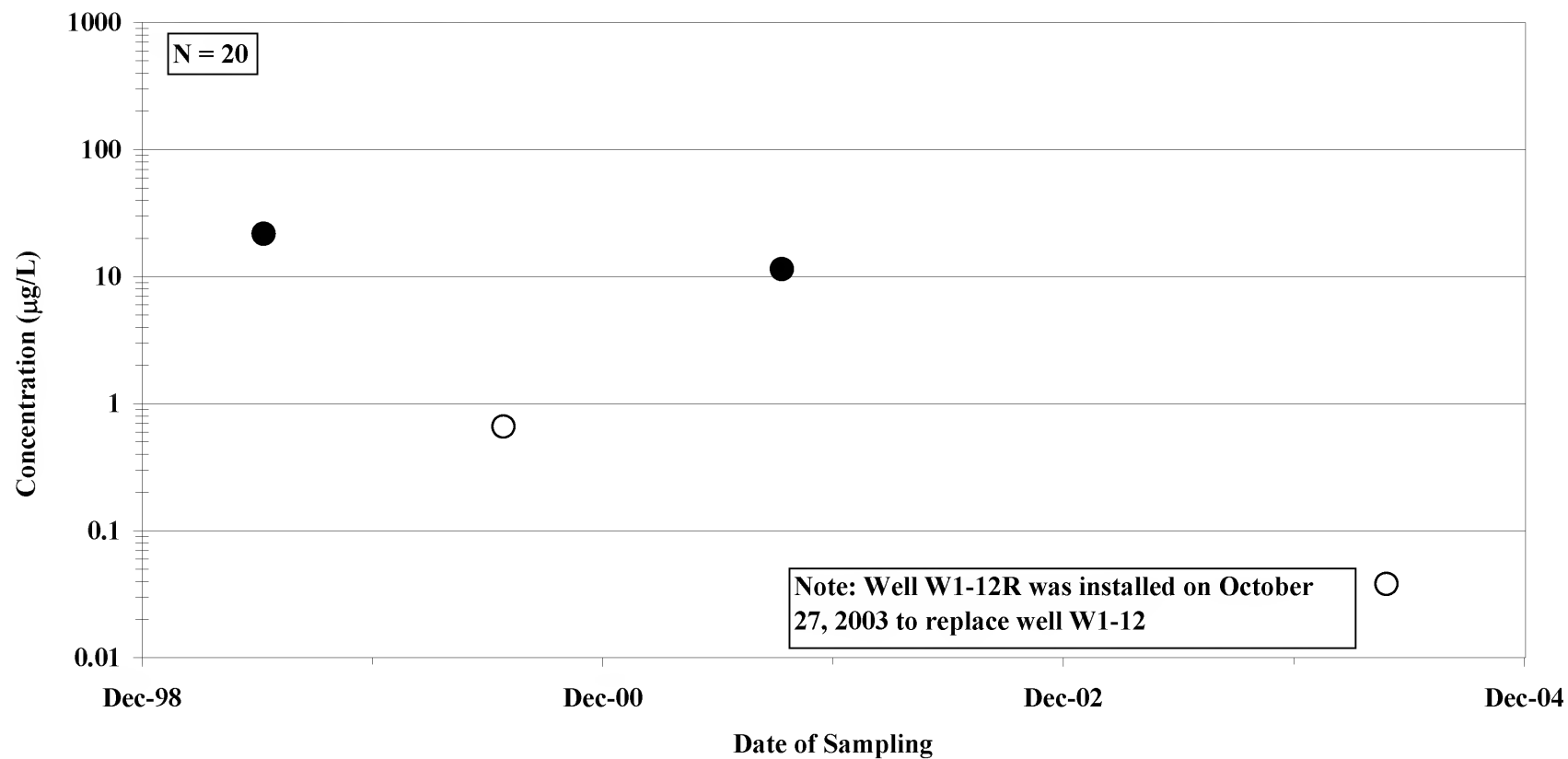


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-115

**DISSOLVED SILVER CONCENTRATIONS IN BACKGROUND MONITORING WELL W1-12 / W1-12R
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

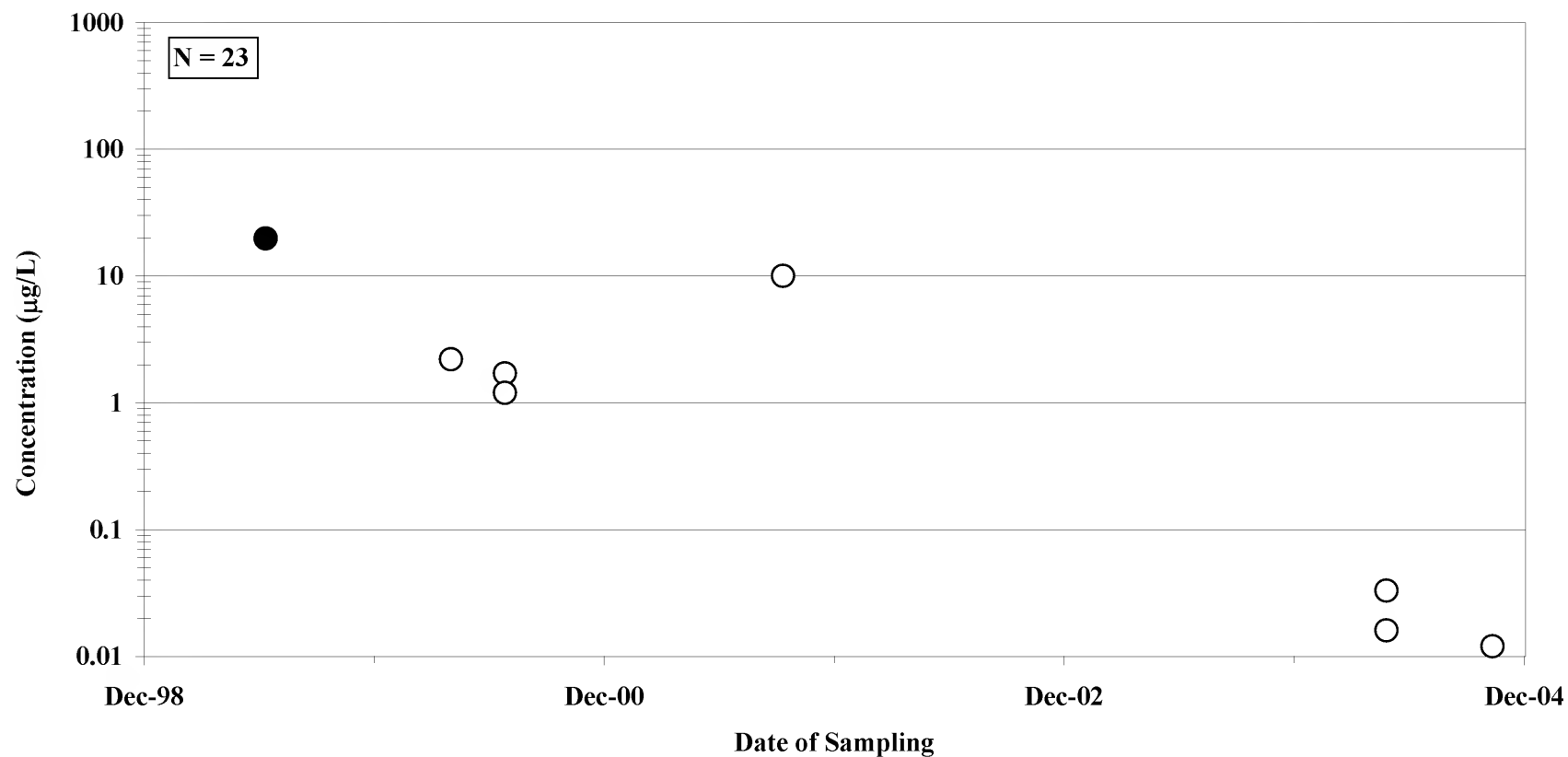


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-116

**DISSOLVED SILVER CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-14
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

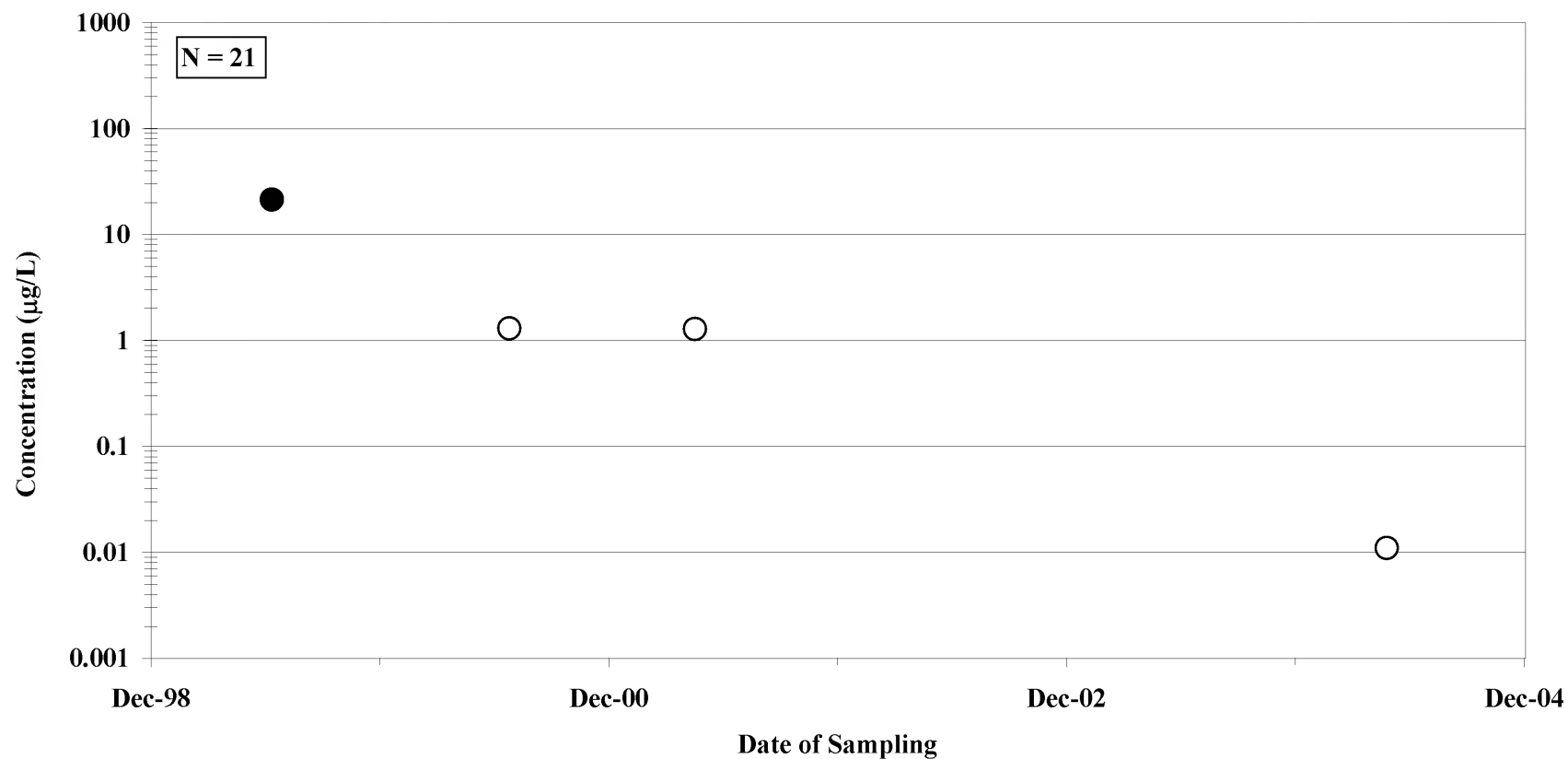


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-117

**DISSOLVED SILVER CONCENTRATIONS IN DOWNGRADIENT MONITORING WELL W1-15
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

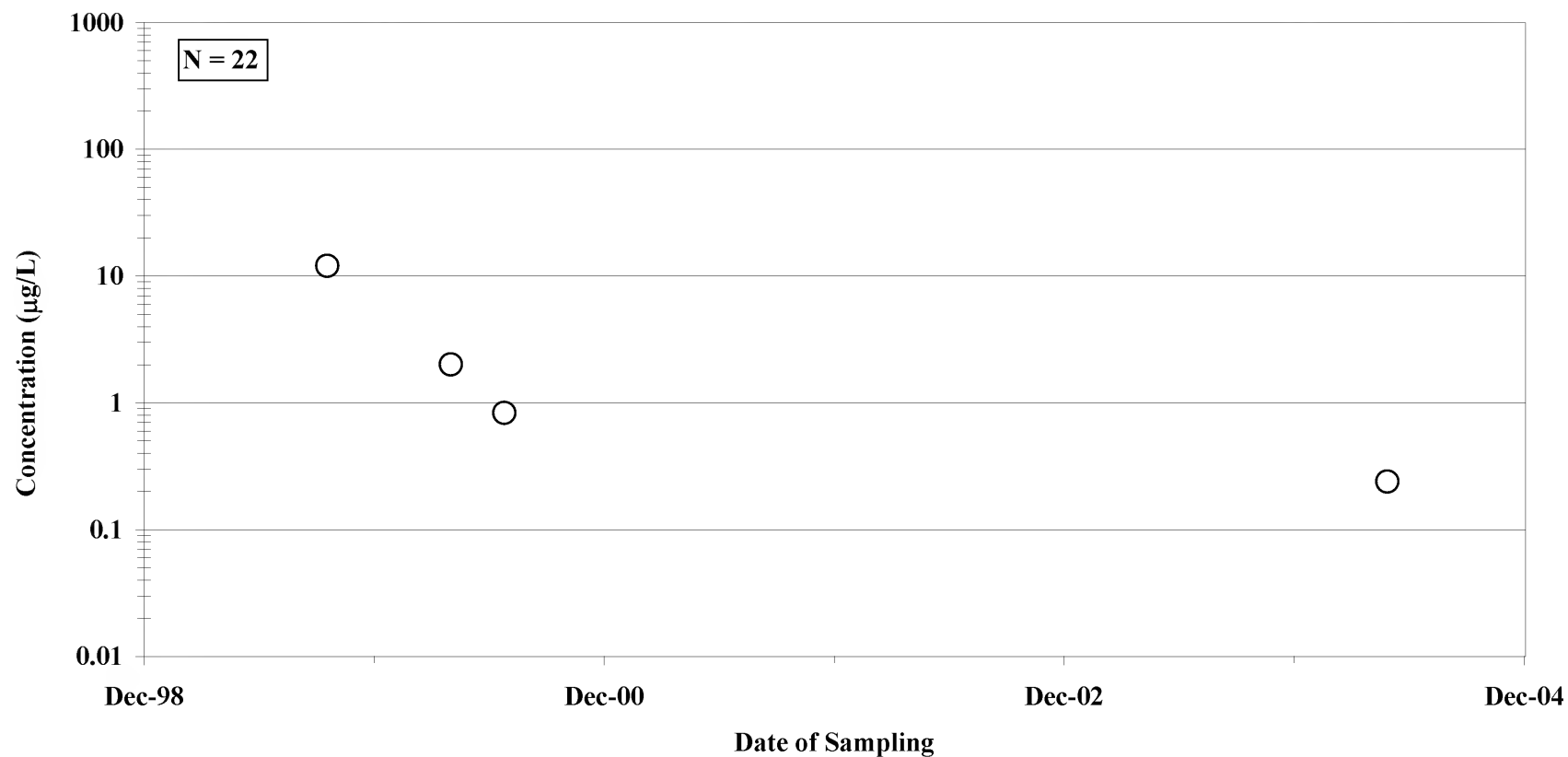


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-118

**DISSOLVED SILVER CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-16
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

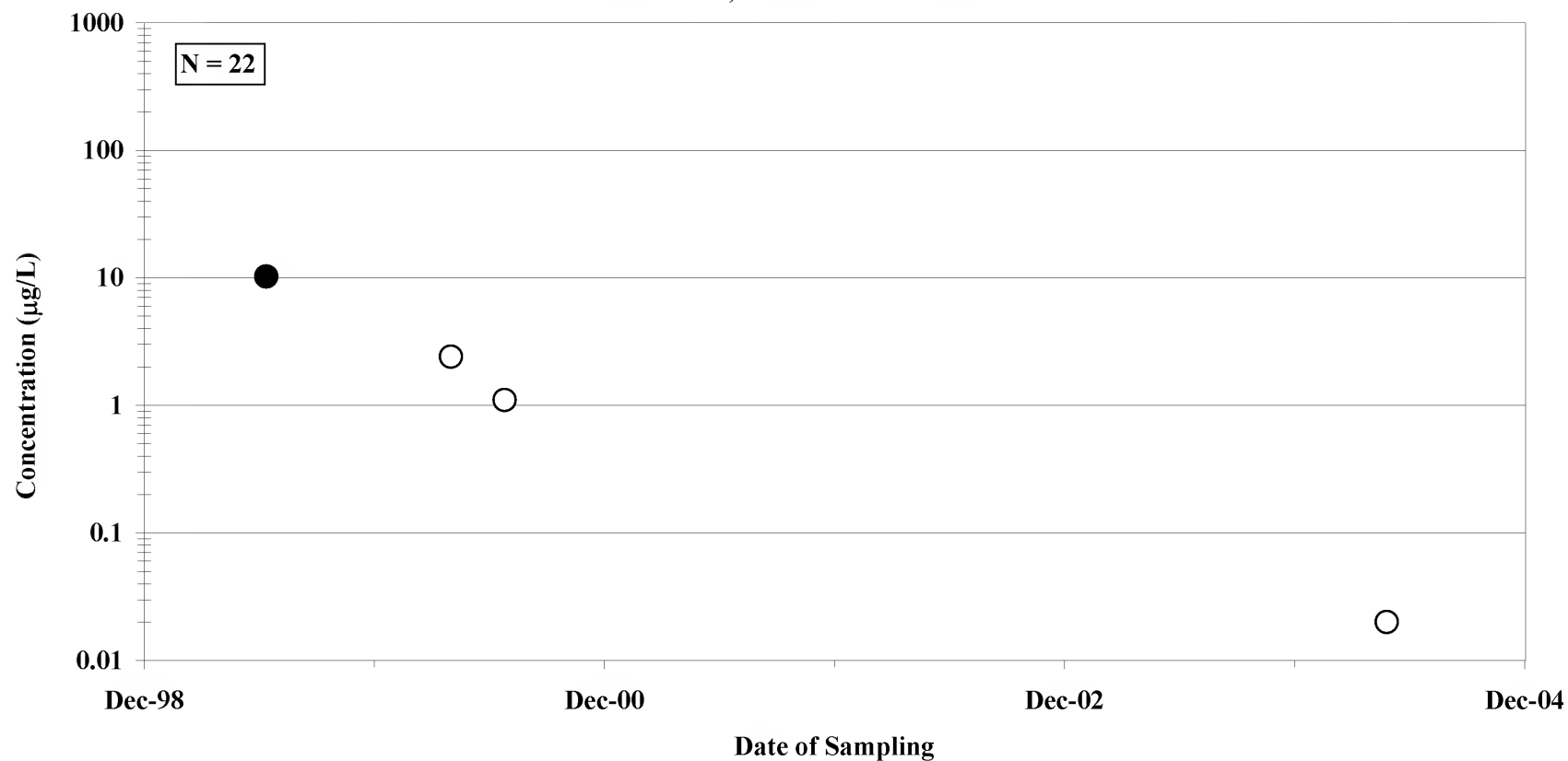


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-119

**DISSOLVED SILVER CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-19
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

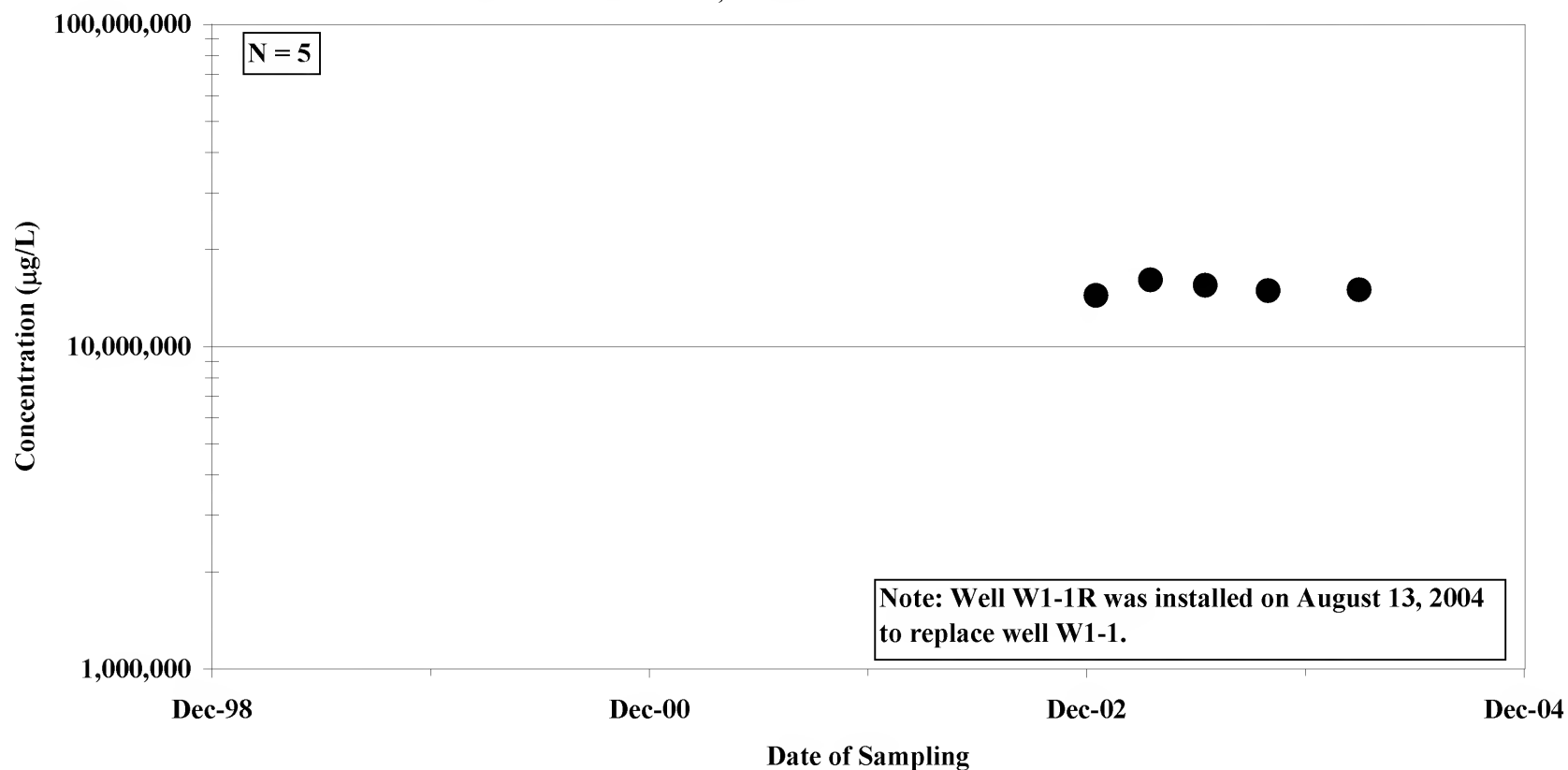


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-120

**DISSOLVED SODIUM CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-1 / W1-1R
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

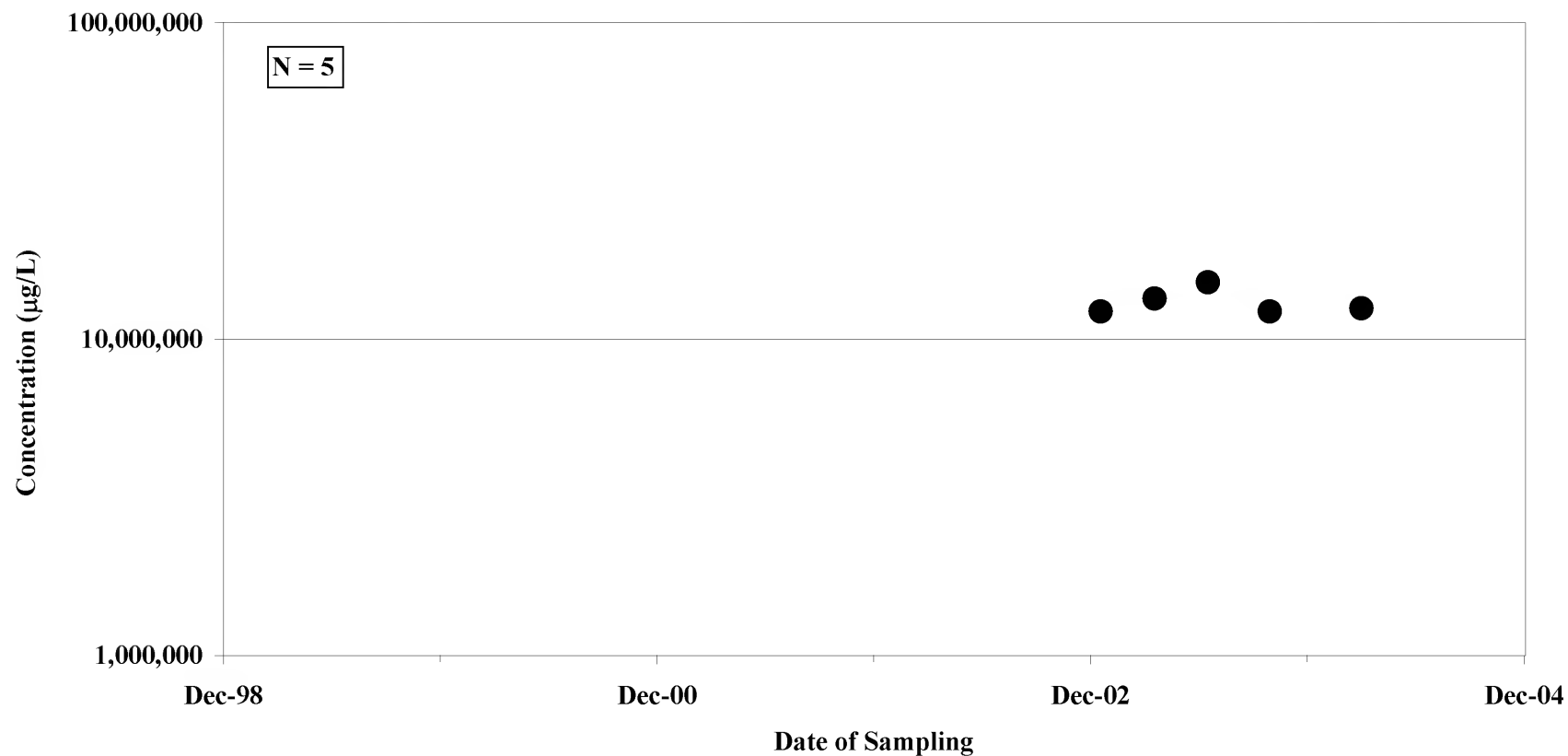


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-121

**DISSOLVED SODIUM CONCENTRATIONS IN BACKGROUND MONITORING WELL W1-5
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

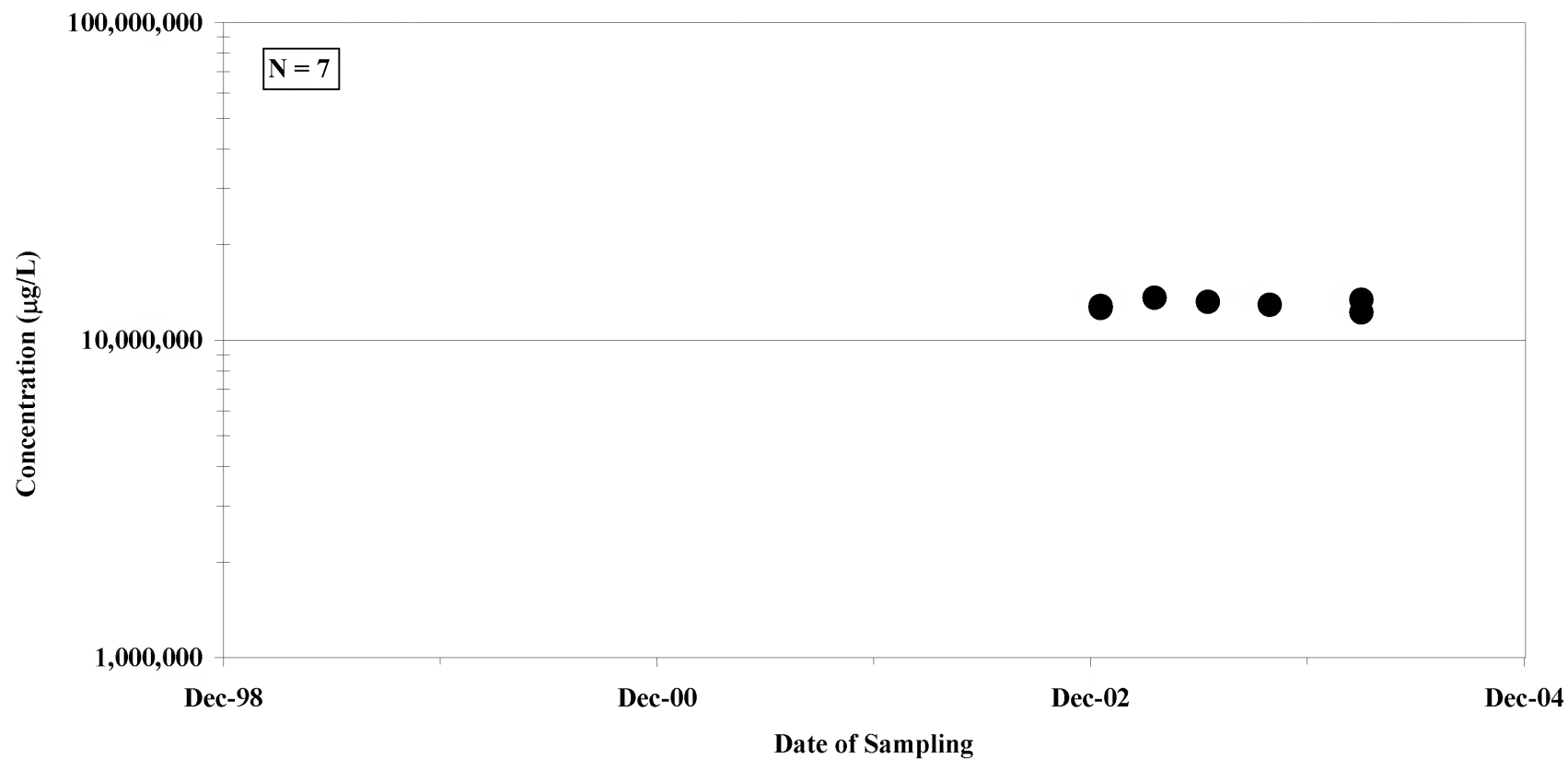


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-122

**DISSOLVED SODIUM CONCENTRATIONS IN BACKGROUND MONITORING WELL W1-8
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

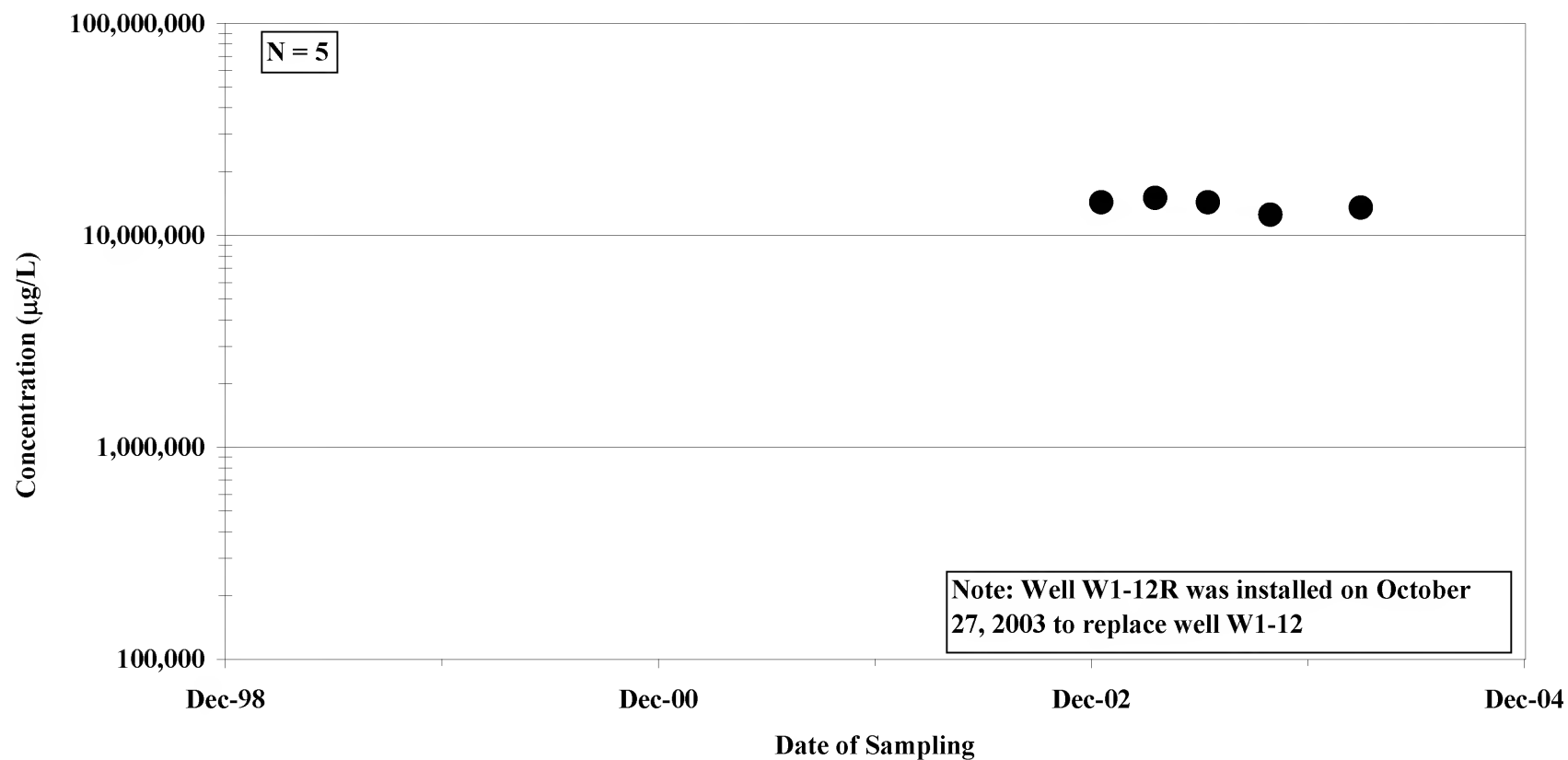


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-123

**DISSOLVED SODIUM CONCENTRATIONS IN BACKGROUND MONITORING WELL W1-12 / W1-12R
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

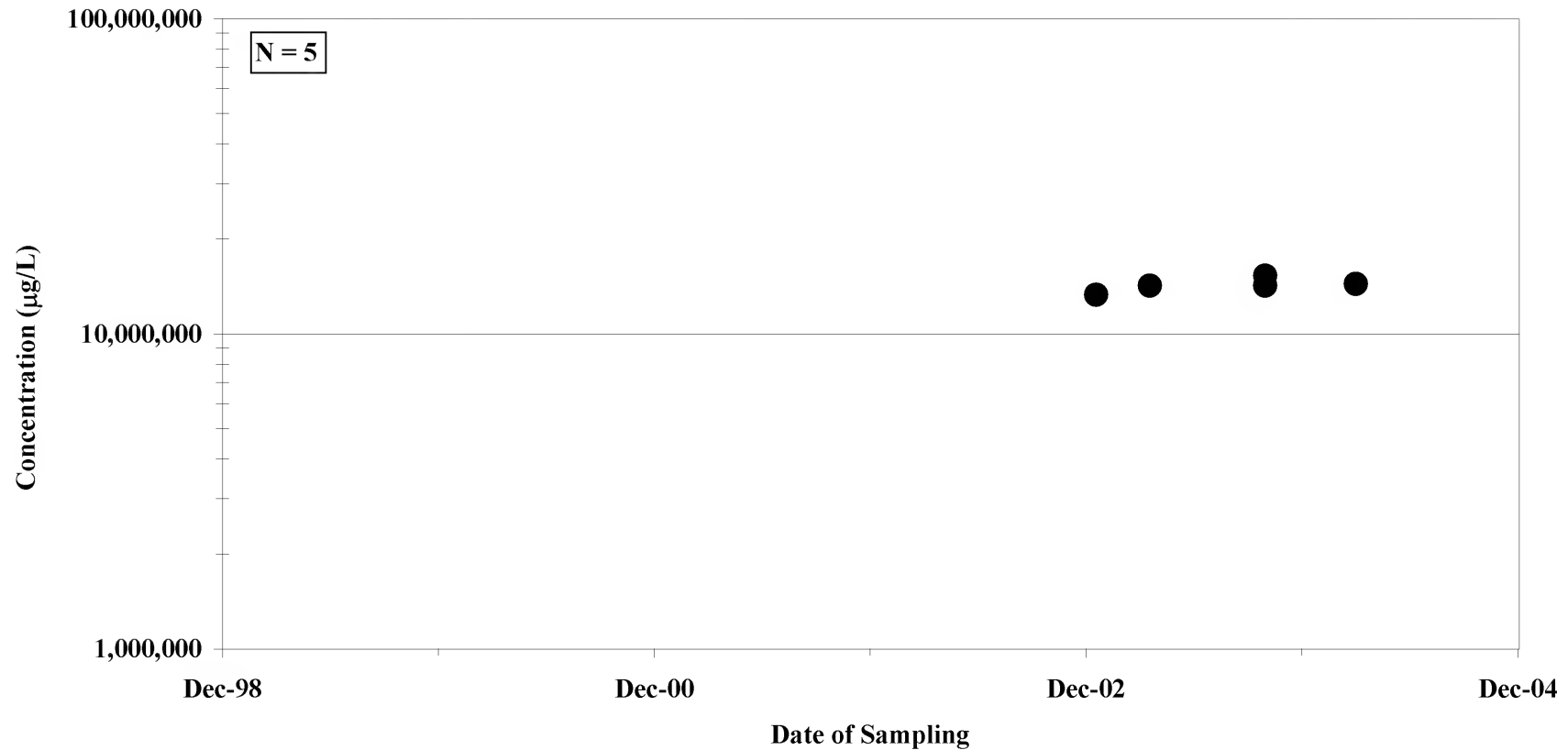


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-124

**DISSOLVED SODIUM CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-14
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

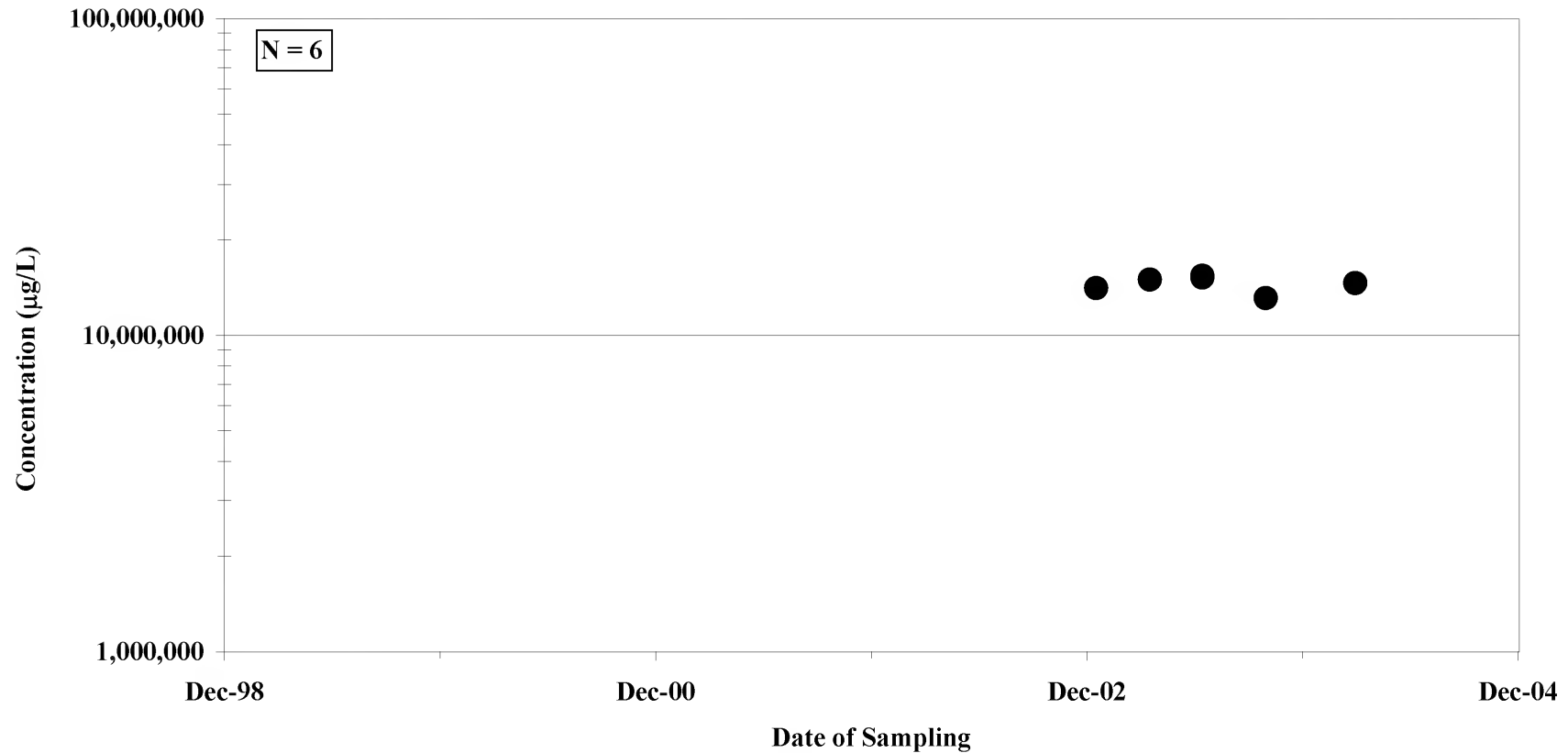


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-125

**DISSOLVED SODIUM CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-15
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

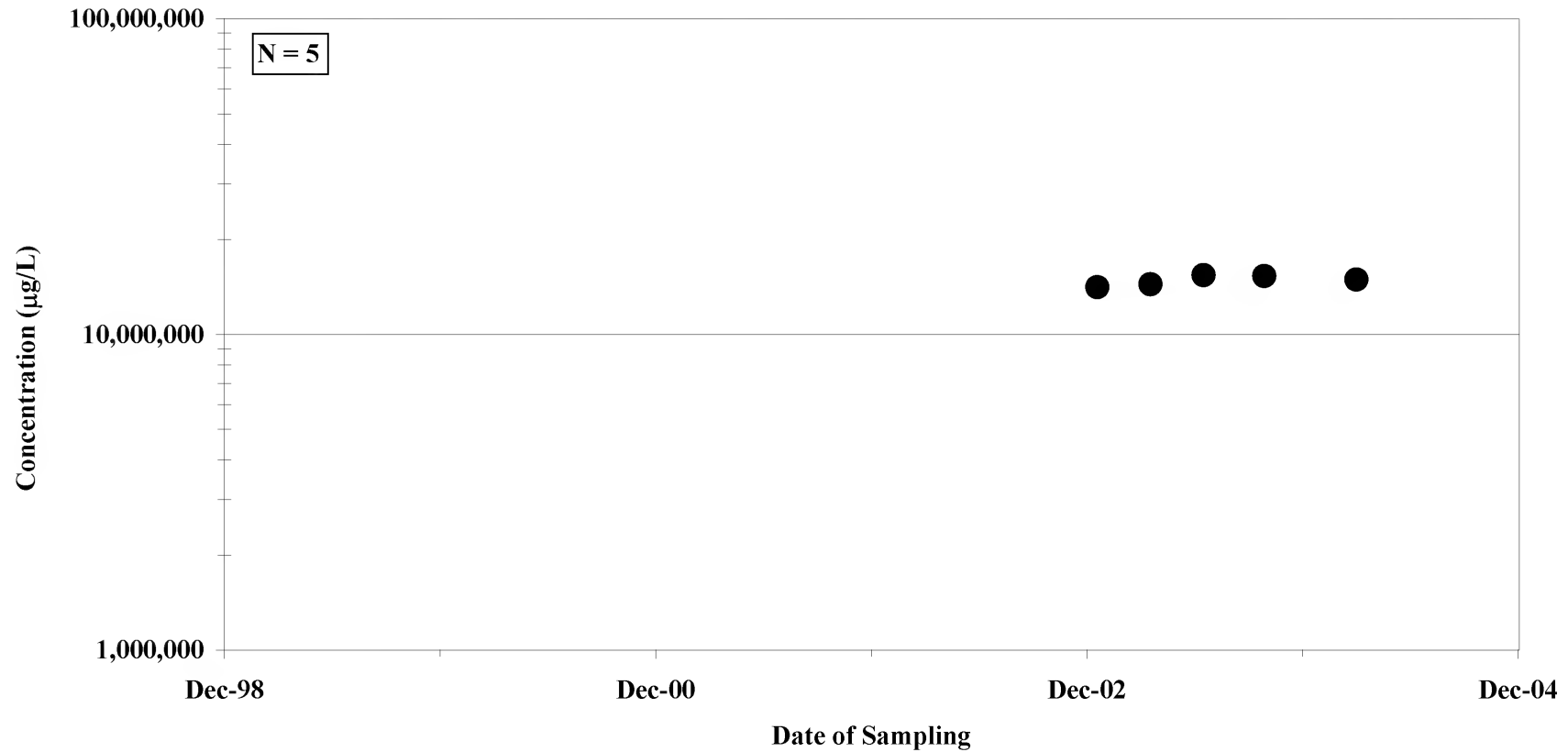


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-126

**DISSOLVED SODIUM CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-16
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

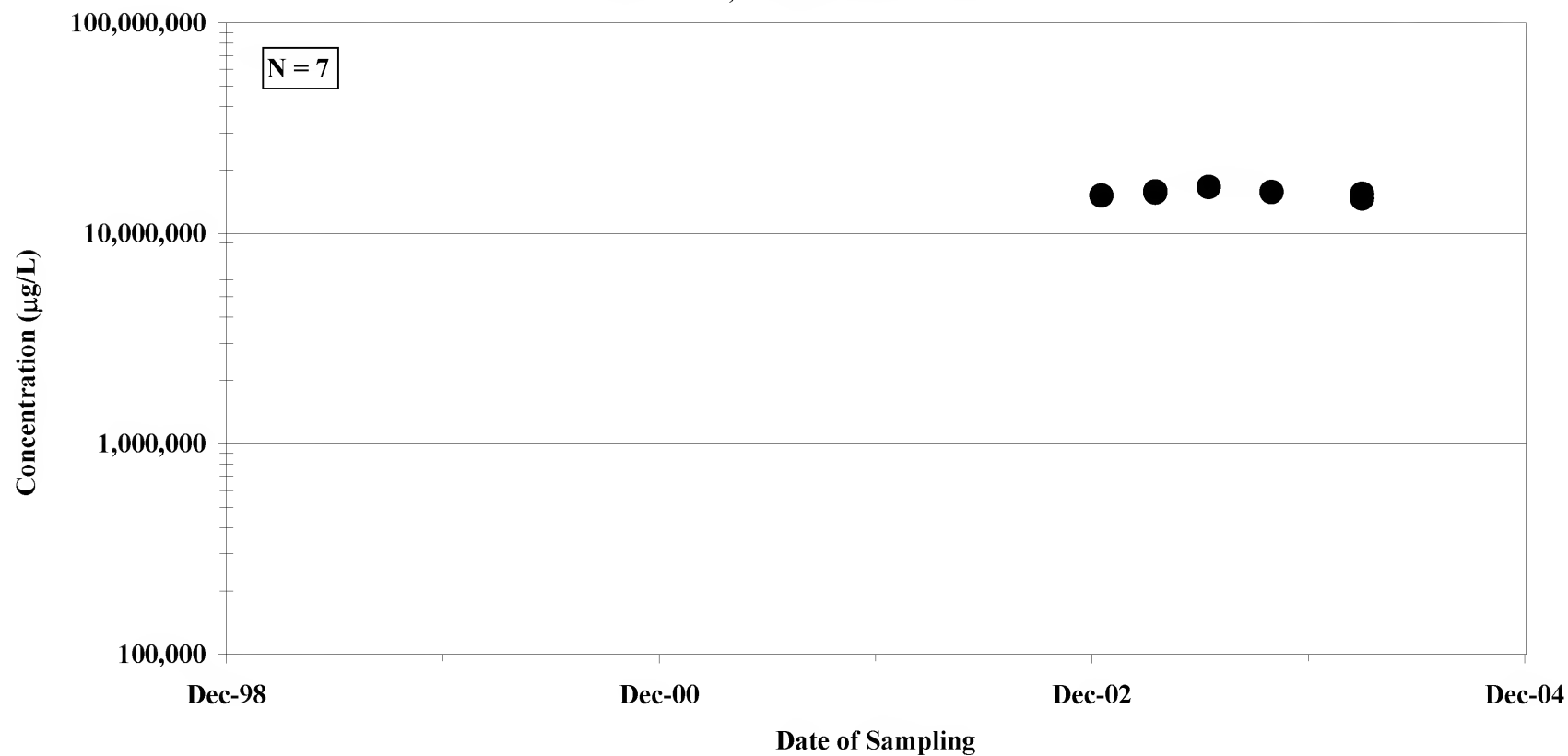


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-127

**DISSOLVED SODIUM CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-19
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

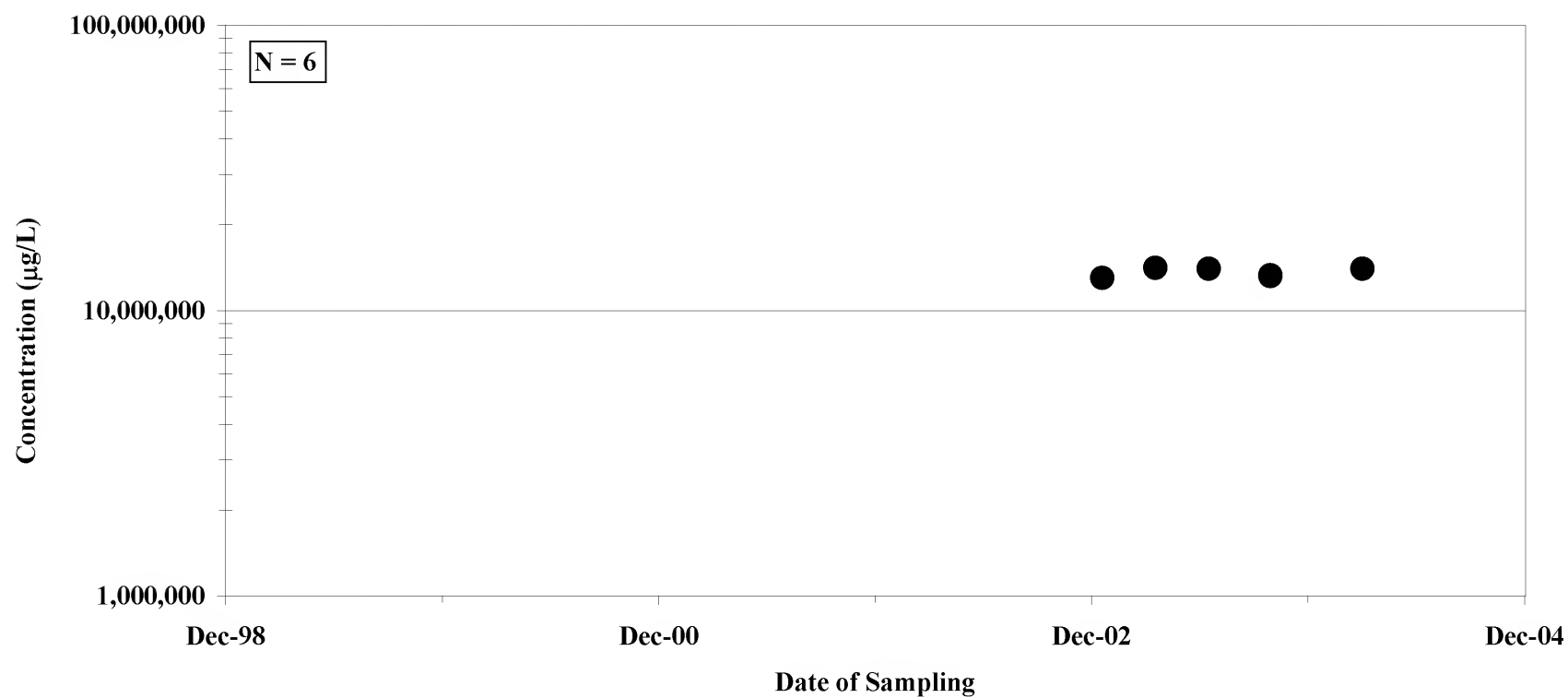


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-128

**DISSOLVED SODIUM CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-24
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

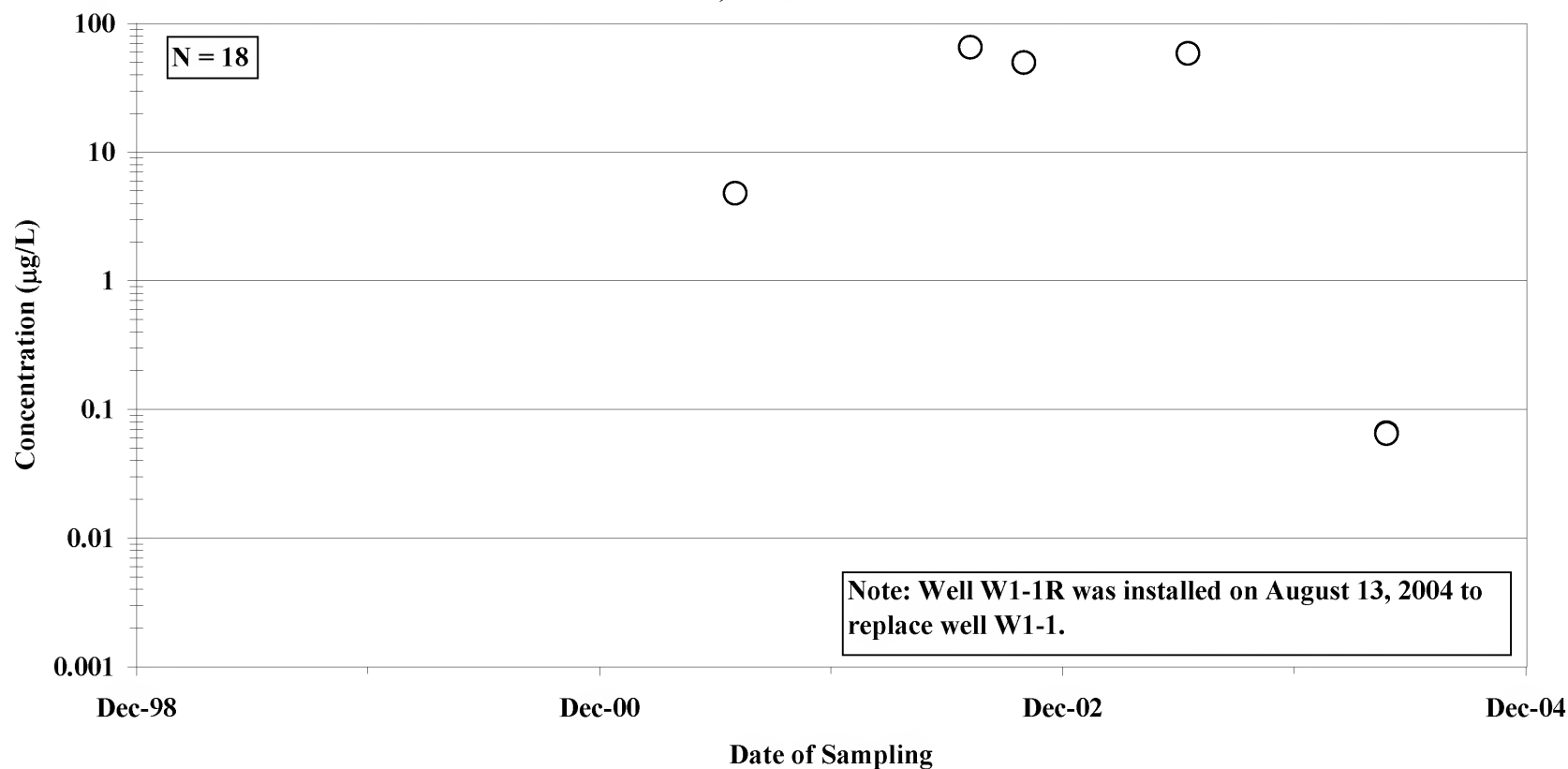


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-129

**DISSOLVED THALLIUM CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-1 / W1-1R
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

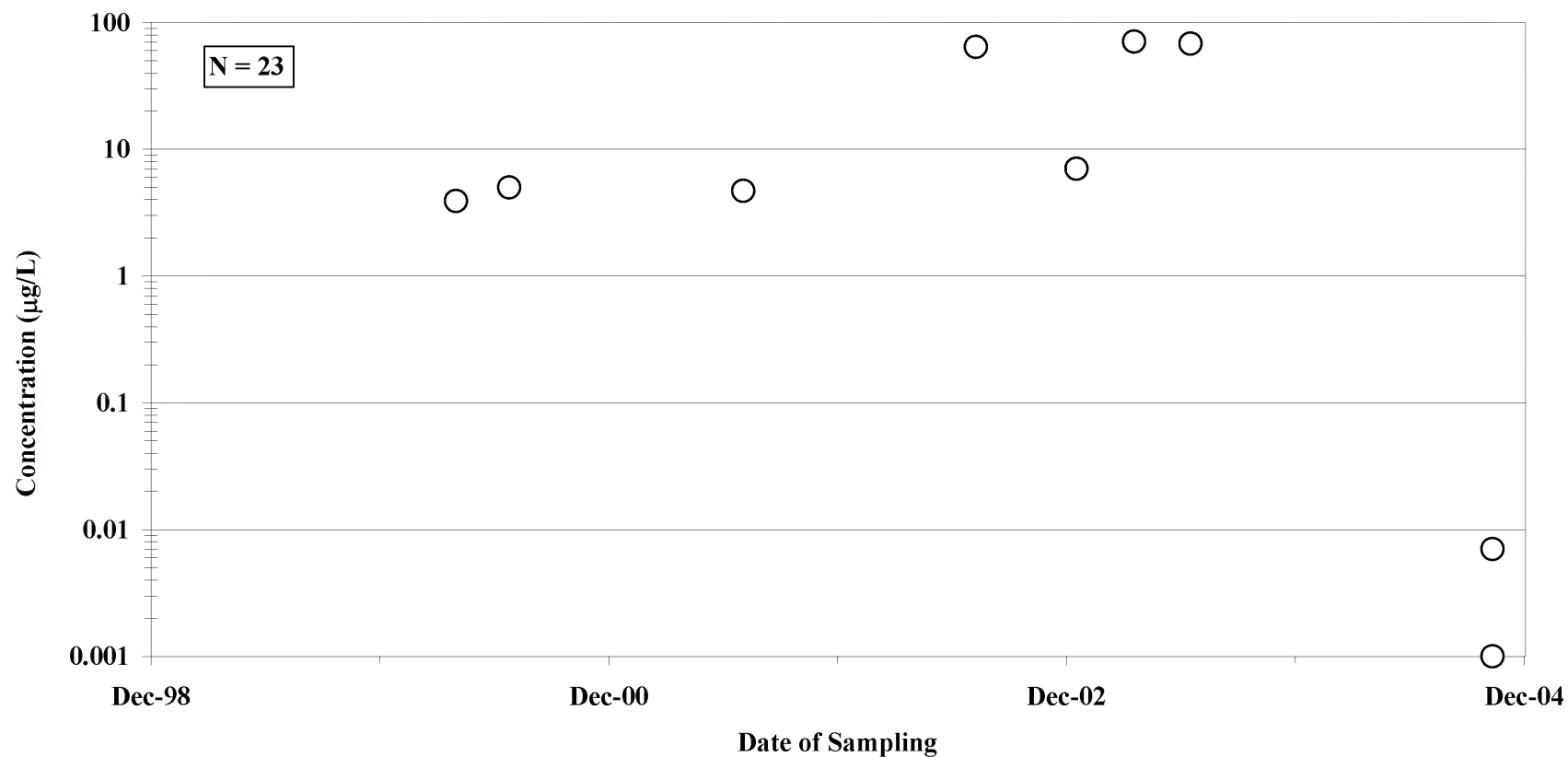


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-130

**DISSOLVED THALLIUM CONCENTRATIONS IN BACKGROUND MONITORING WELL W1-5
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

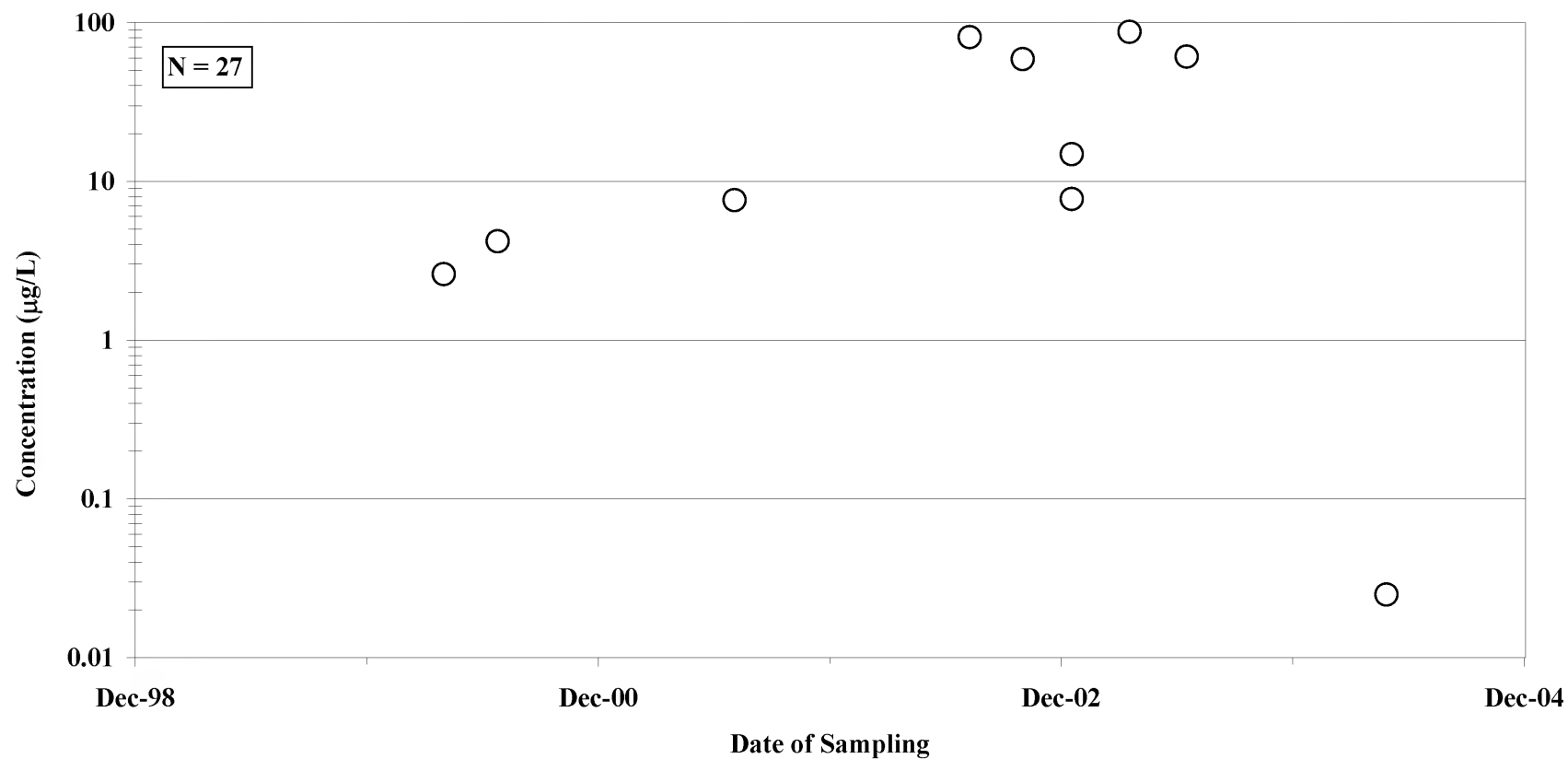


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-131

**DISSOLVED THALLIUM CONCENTRATIONS IN BACKGROUND MONITORING WELL W1-8
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

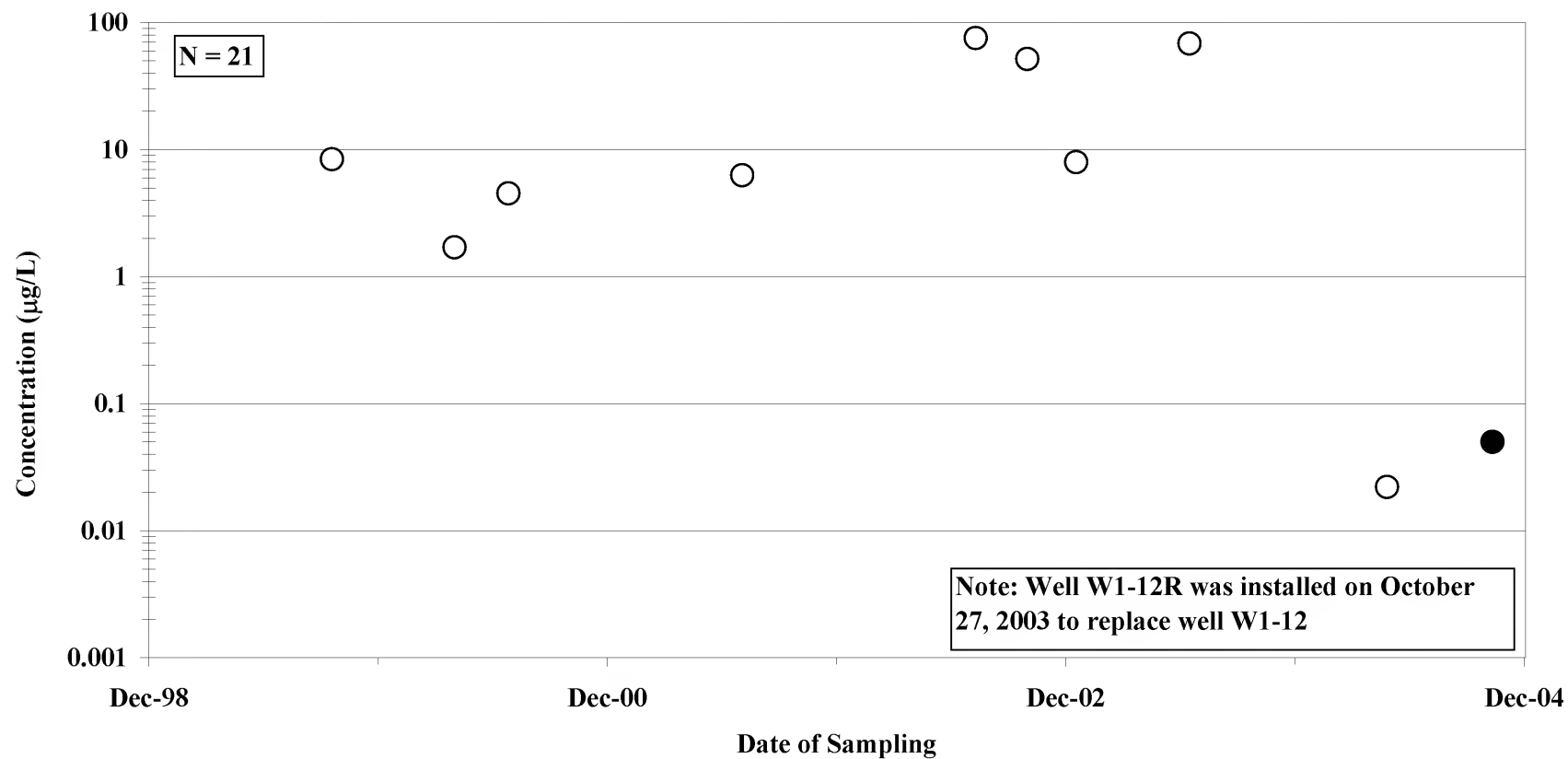


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-132

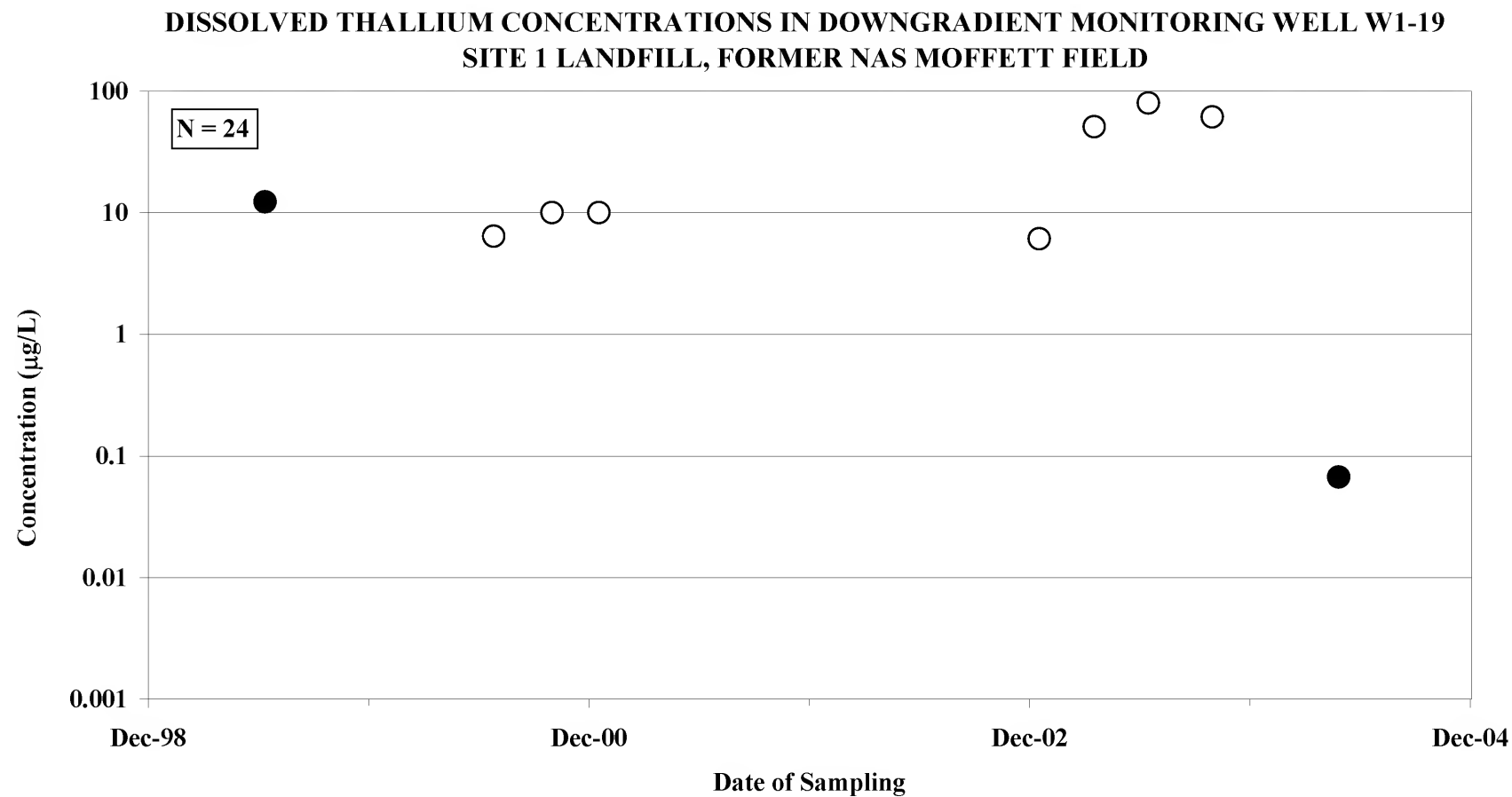
**DISSOLVED THALLIUM CONCENTRATIONS IN BACKGROUND MONITORING WELL W1-12 / W1-12R
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**



Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-133

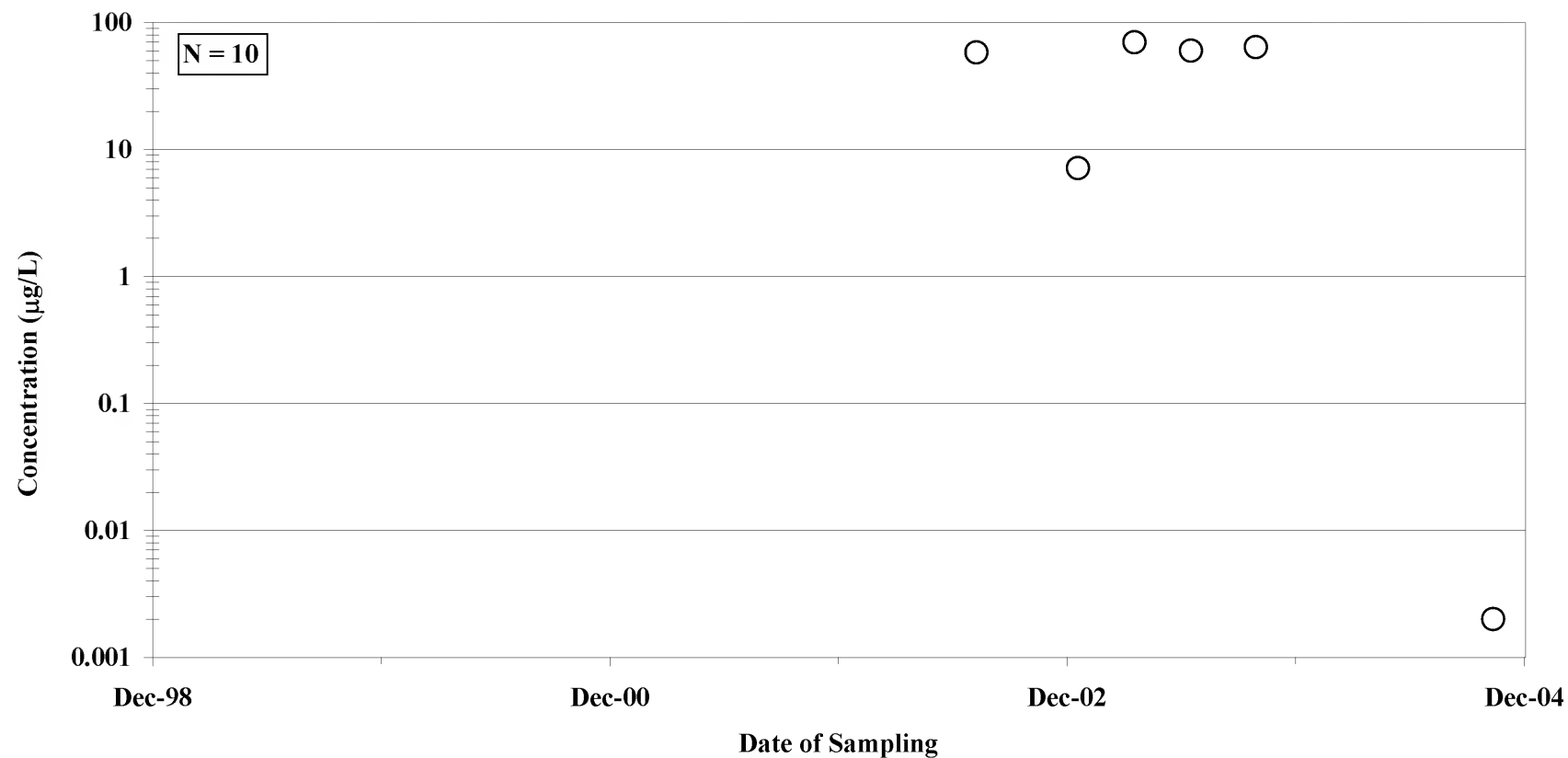


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-134

**DISSOLVED THALLIUM CONCENTRATIONS IN DOWNGRADIENT MONITORING WELL W1-24
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

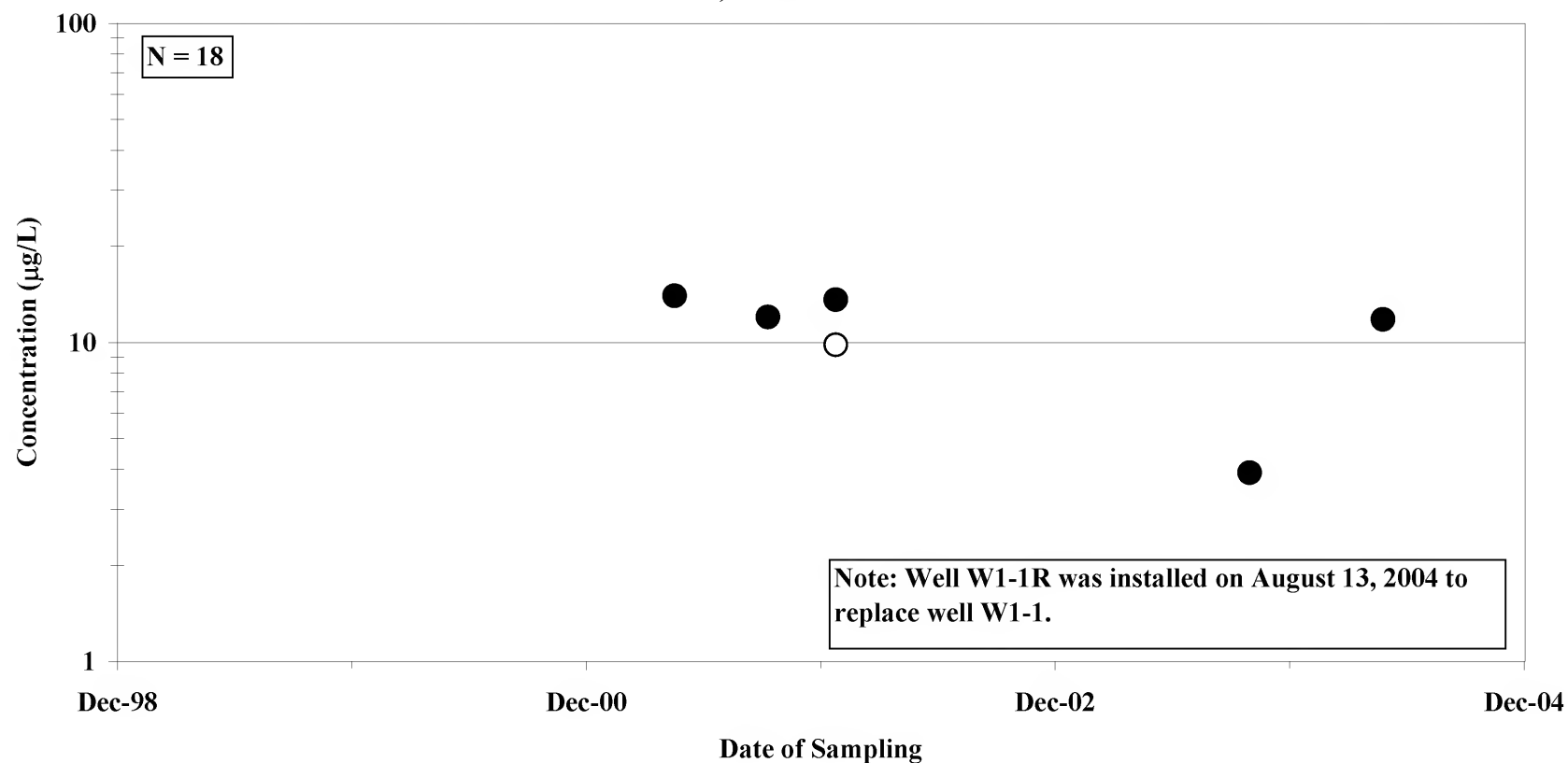


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-135

**DISSOLVED VANADIUM CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-1 / W1-1R
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

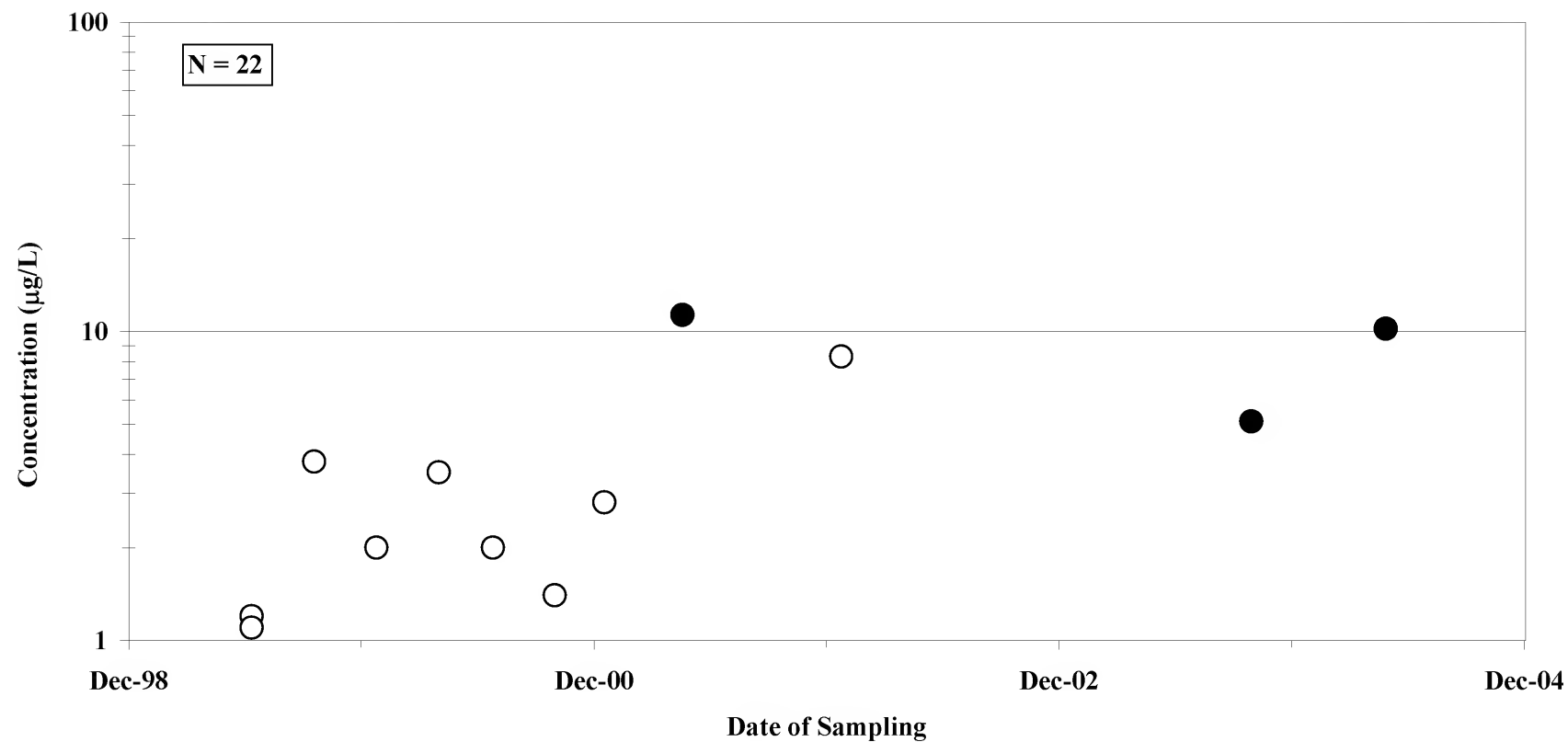


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-136

**DISSOLVED VANADIUM CONCENTRATIONS IN BACKGROUND MONITORING WELL W1-5
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

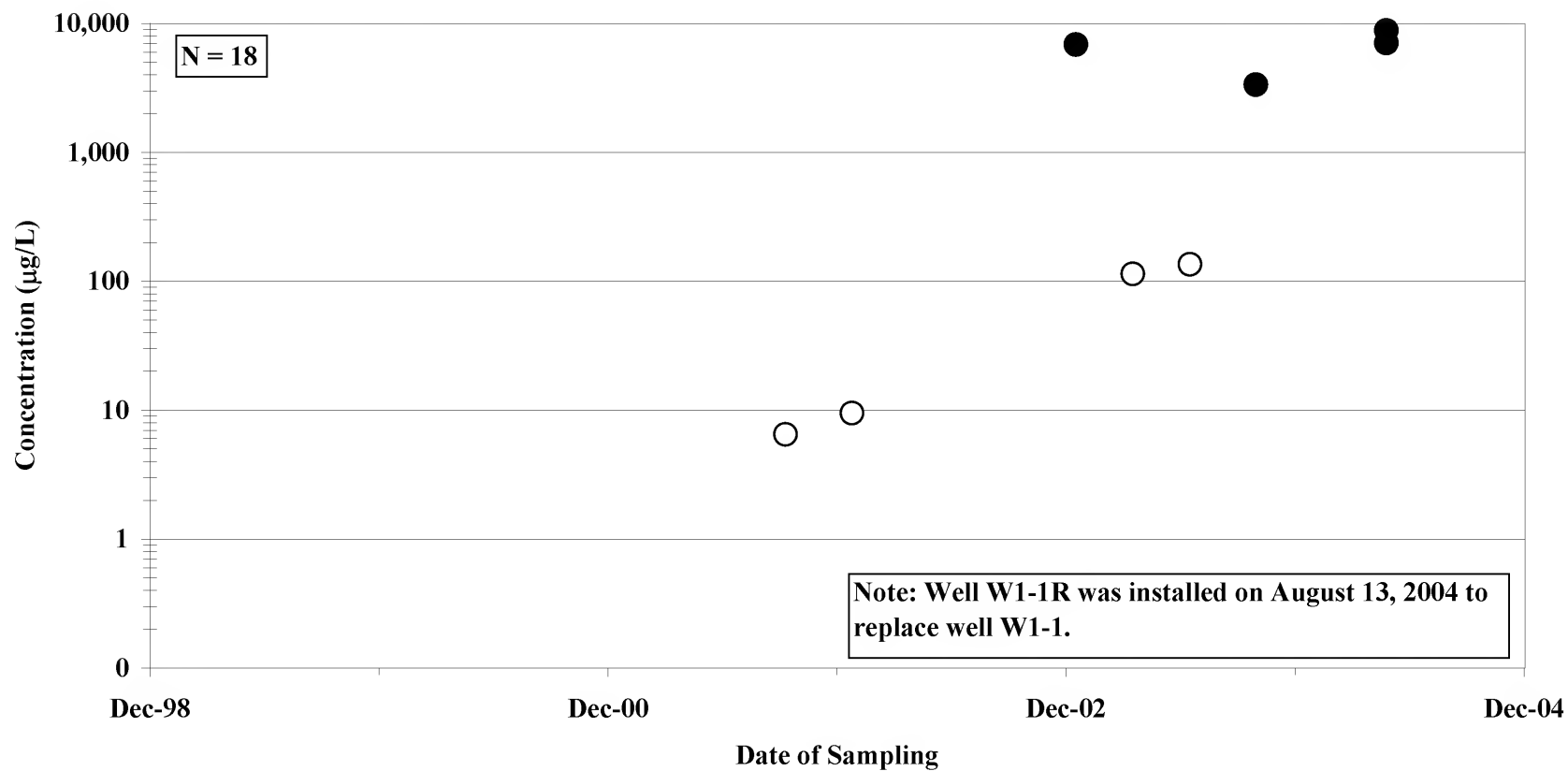


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-137

**DISSOLVED ZINC CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-1 / W1-1R
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

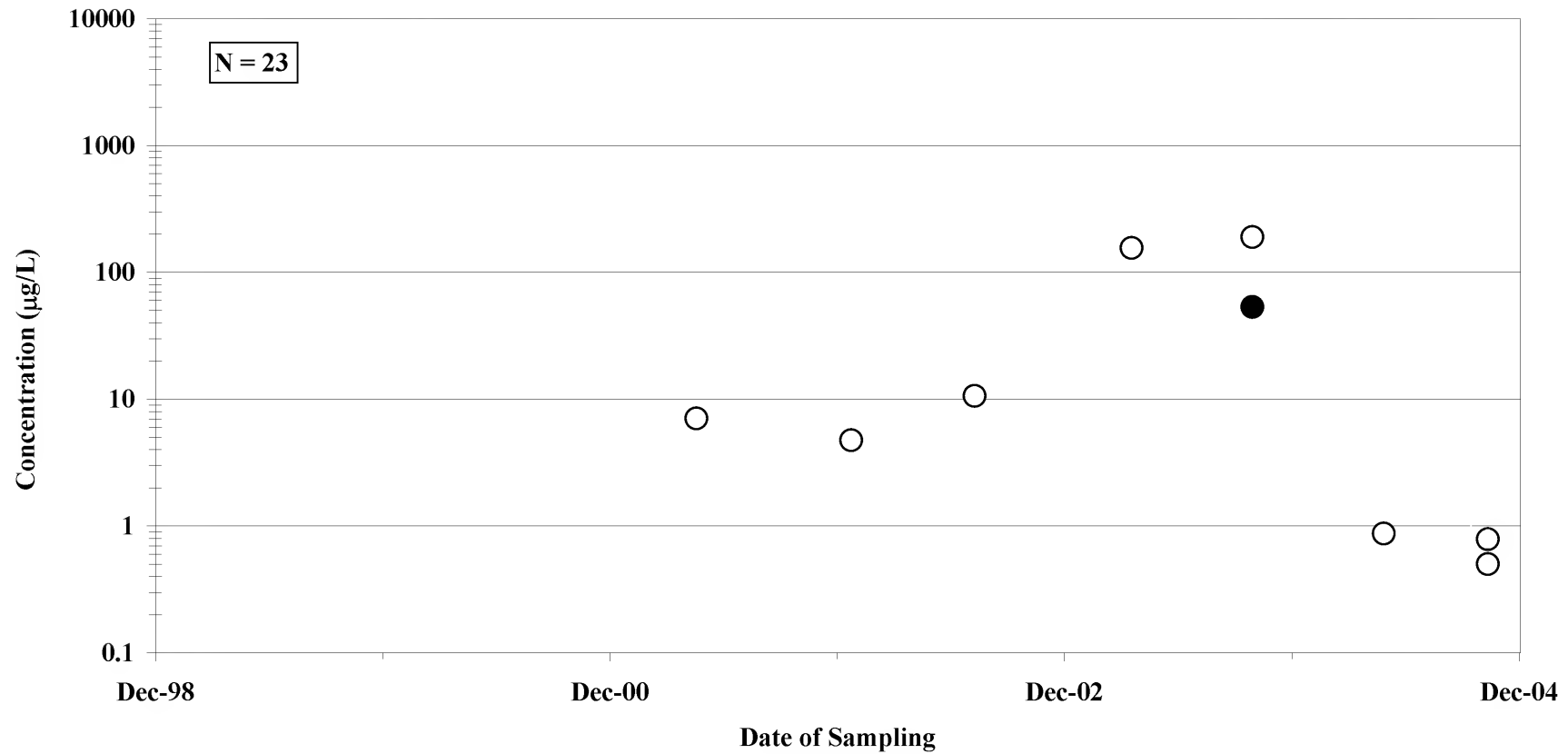


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-138

**DISSOLVED ZINC CONCENTRATIONS IN BACKGROUND MONITORING WELL W1-5
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

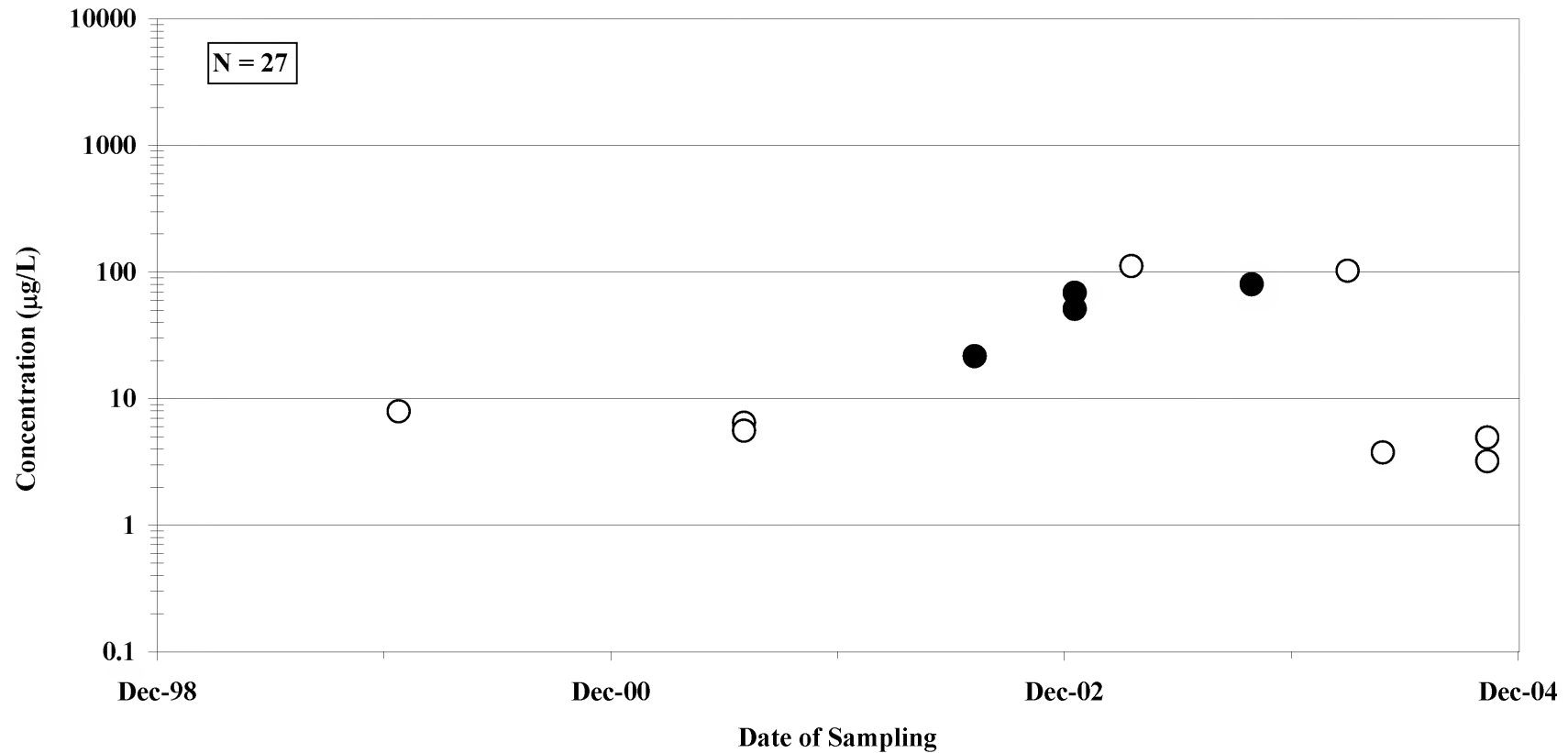


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-139

**DISSOLVED ZINC CONCENTRATIONS IN BACKGROUND MONITORING WELL W1-8
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

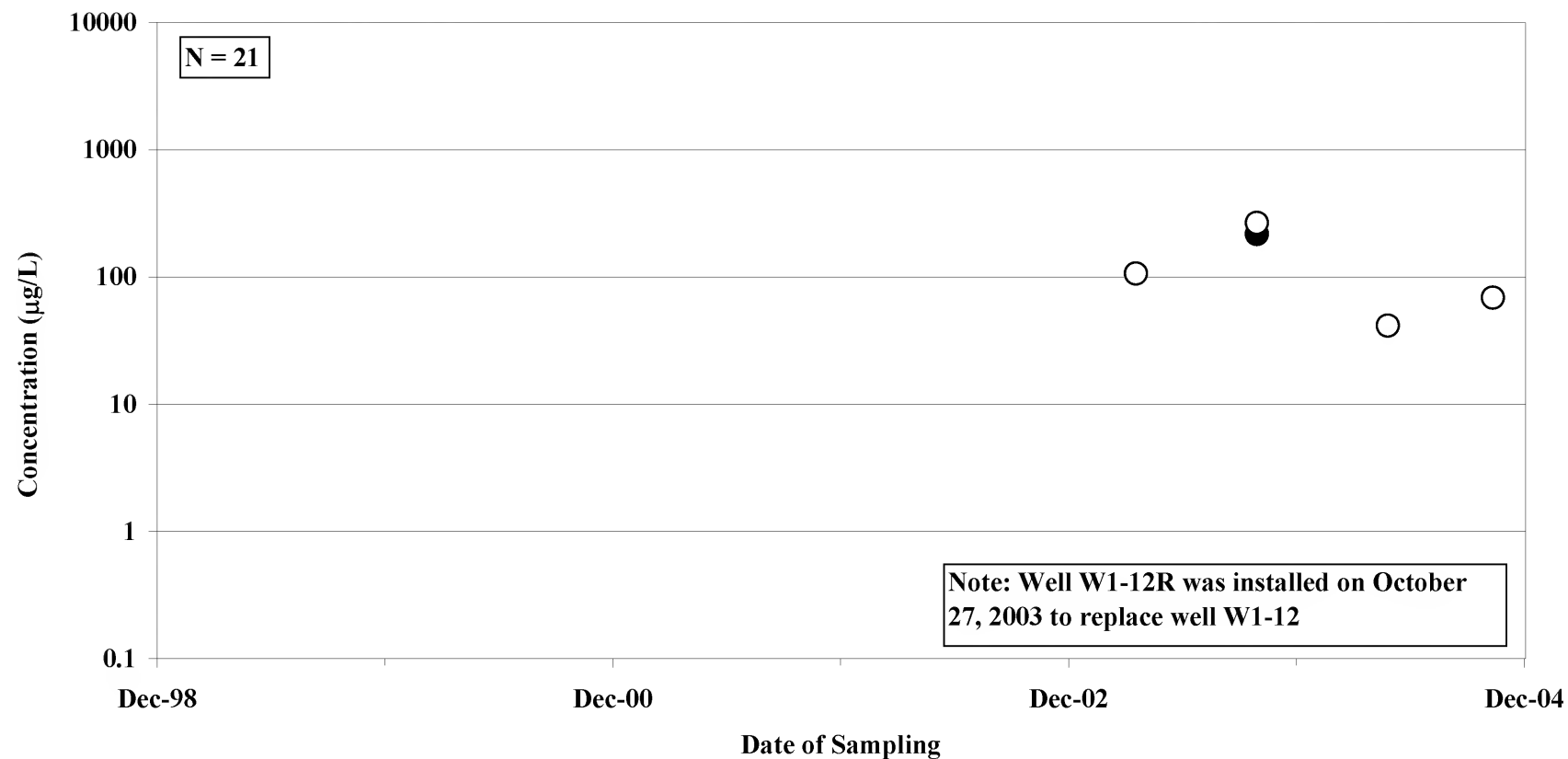


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-140

**DISSOLVED ZINC CONCENTRATIONS IN BACKGROUND MONITORING WELL W1-12 / W1-12R
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

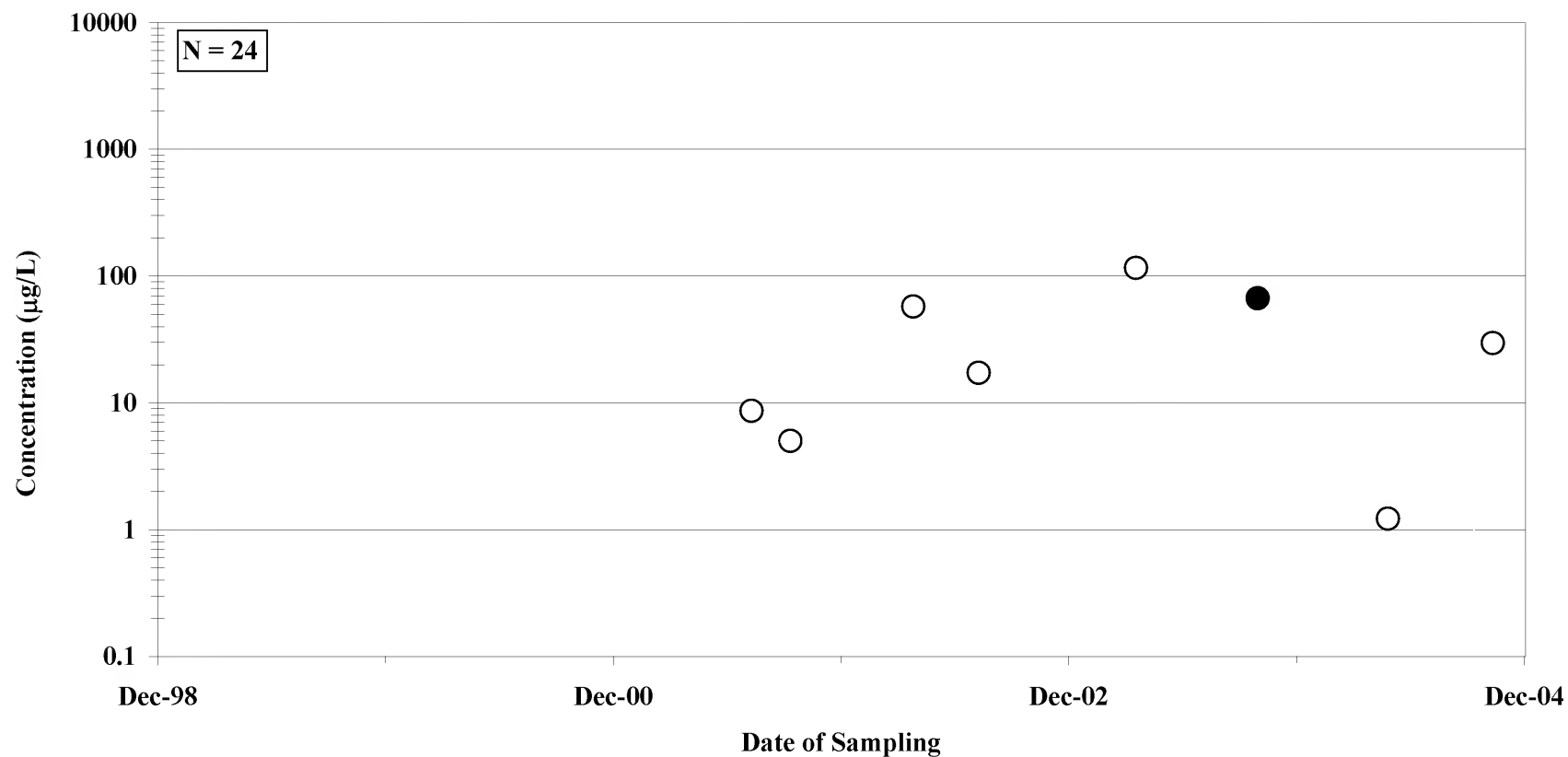


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-141

**DISSOLVED ZINC CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-14
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

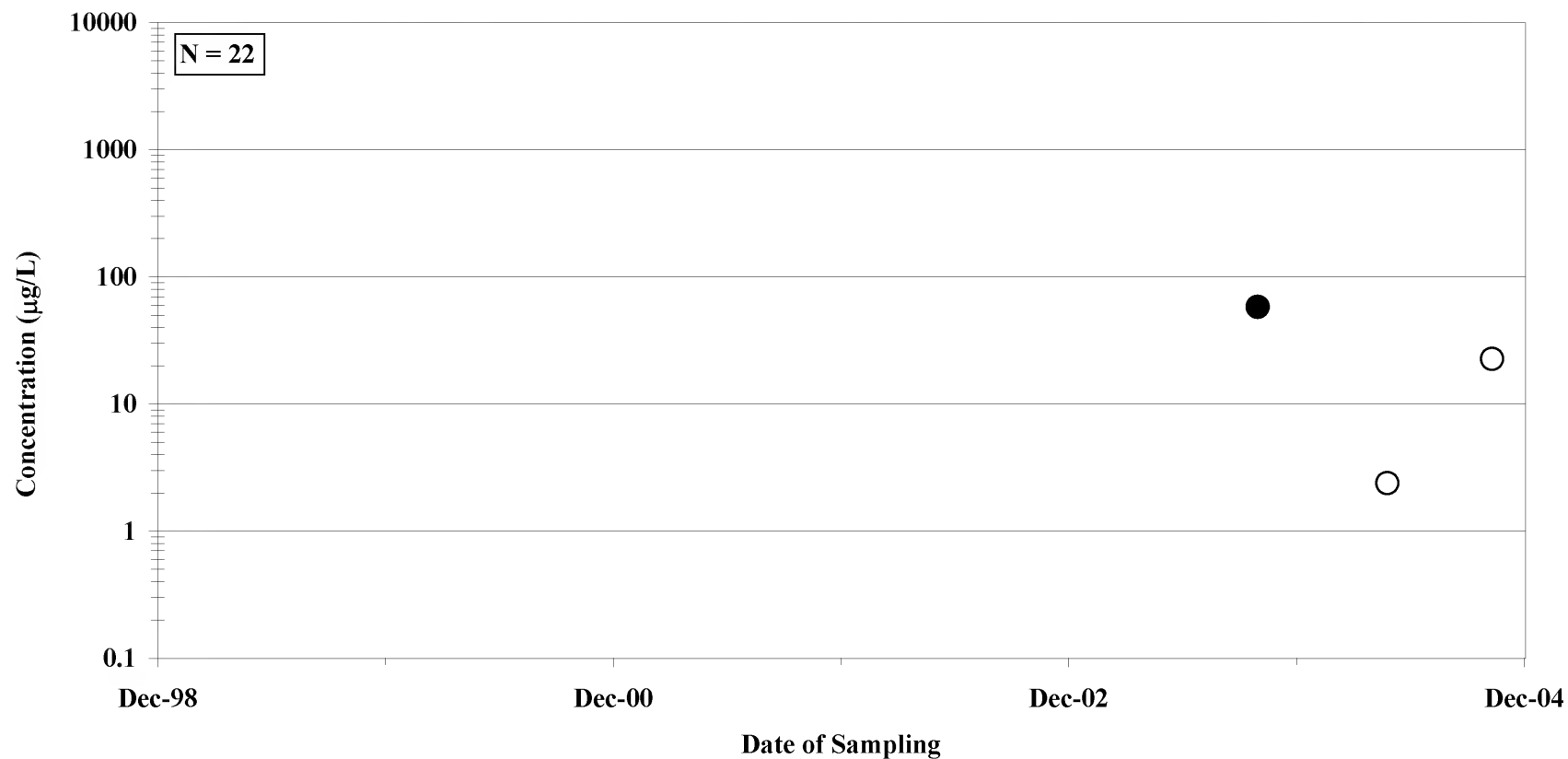


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-142

**DISSOLVED ZINC CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-15
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

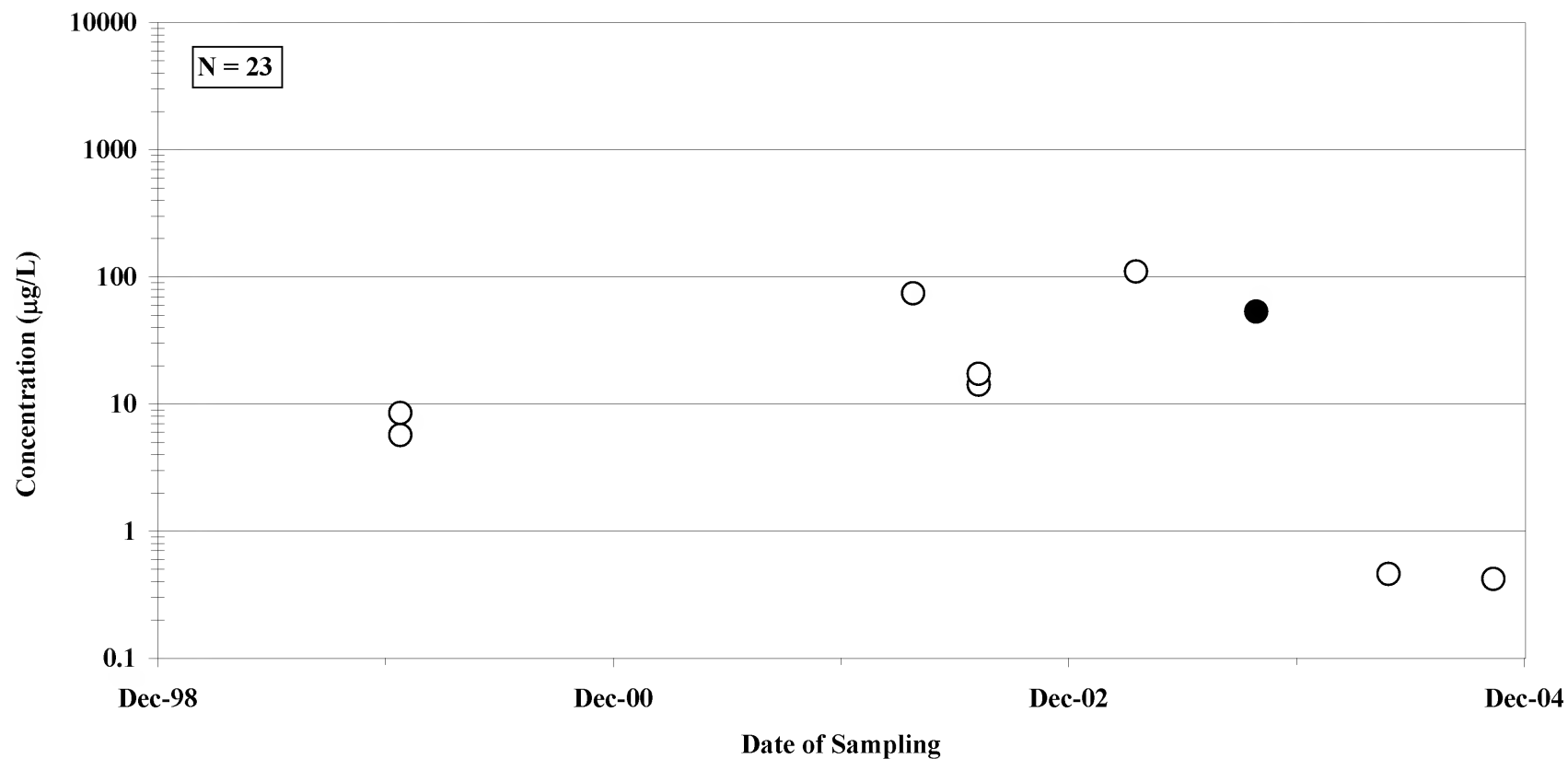


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-143

**DISSOLVED ZINC CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-16
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

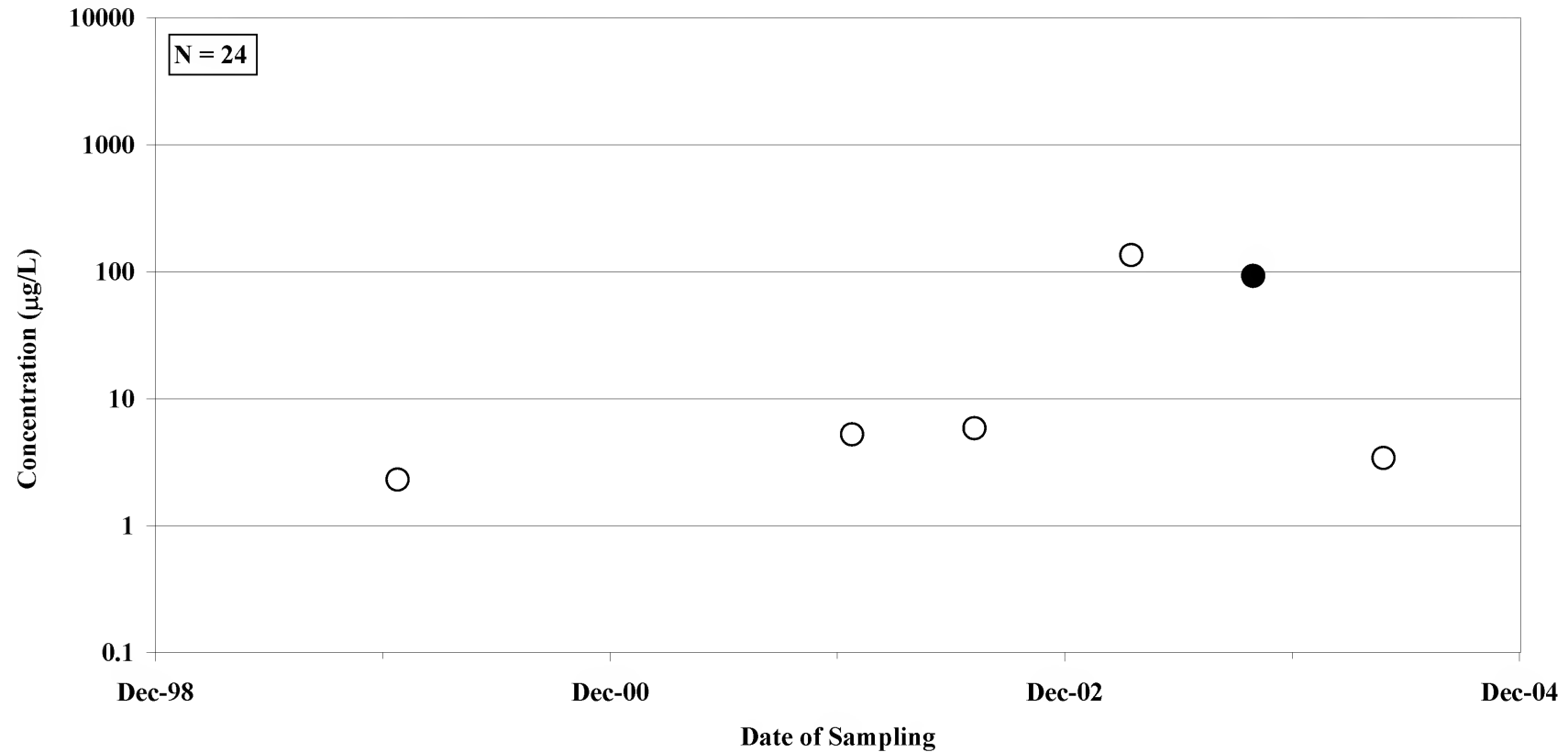


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-144

**DISSOLVED ZINC CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-19
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**

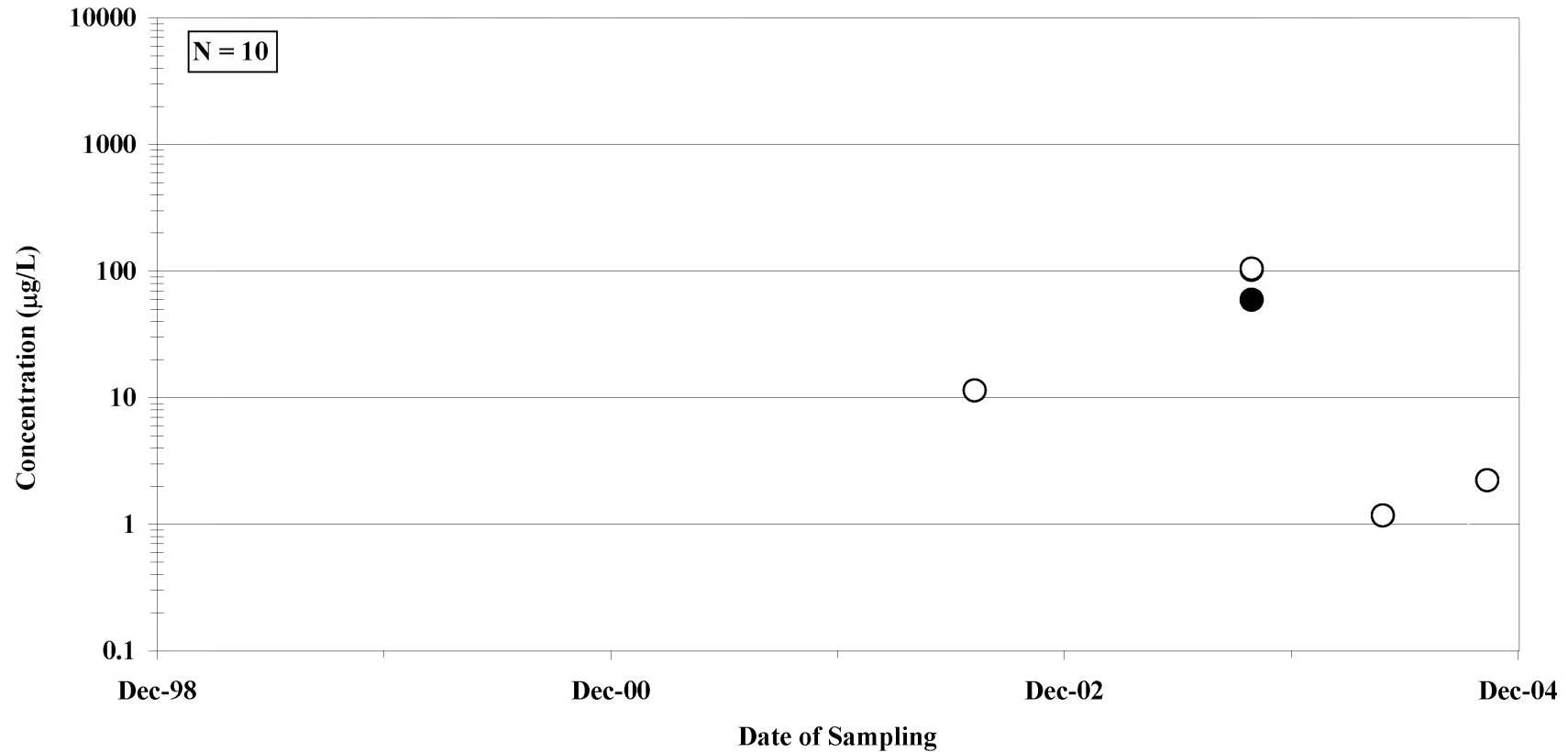


Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

FIGURE E-145

**DISSOLVED ZINC CONCENTRATIONS IN DOWNGRAIDENT MONITORING WELL W1-24
SITE 1 LANDFILL, FORMER NAS MOFFETT FIELD**



Notes:

1. Non-detect results are not plotted.
2. Open symbols indicate estimated values.
3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
4. N = Total number of samples.

APPENDIX F

METHANE MONITORING DATA GRAPHS

FIGURE F-1

TIME SERIES OF PERCENT METHANE PLOT, PASSIVE GAS VENT GV-1

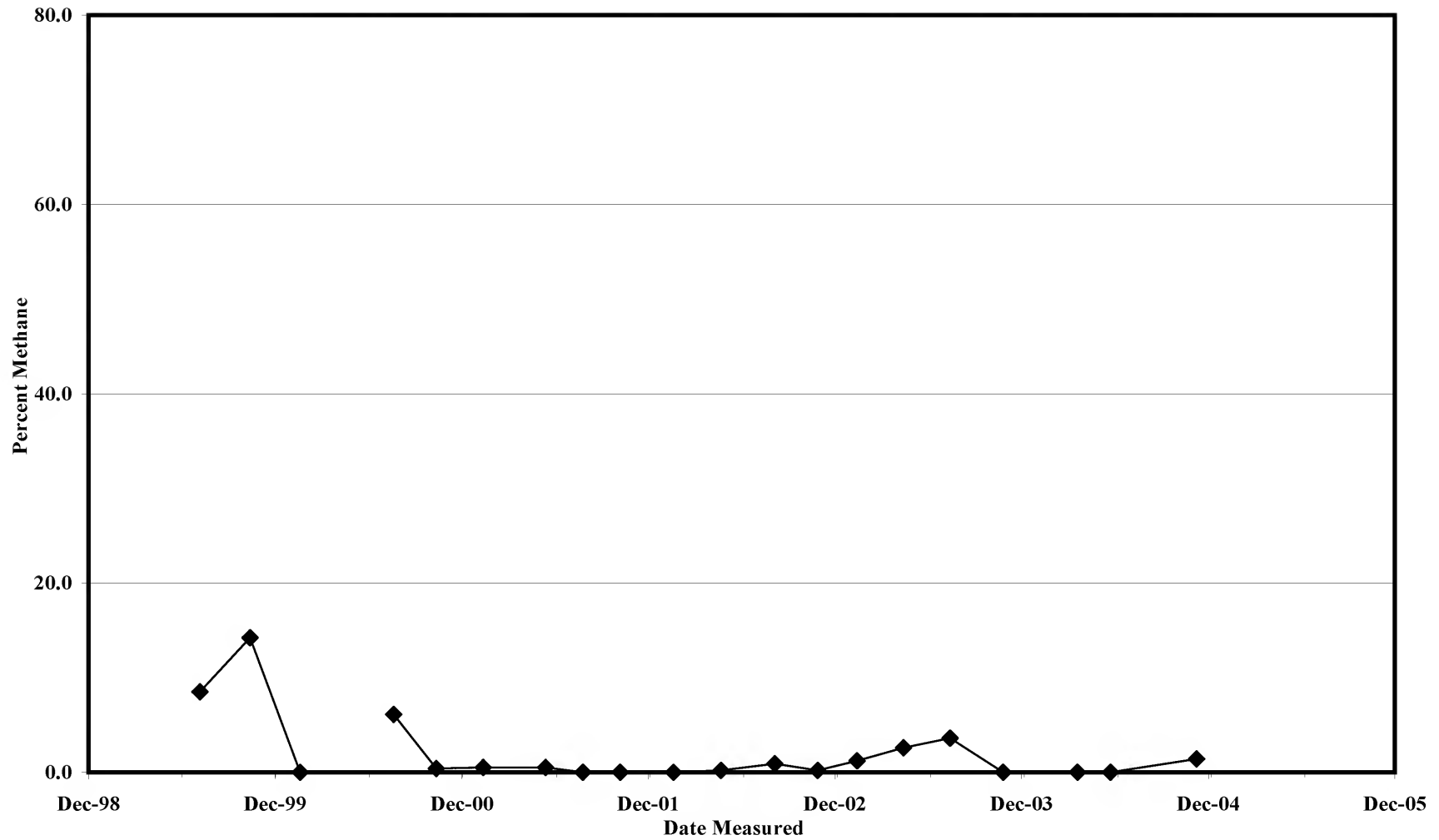


FIGURE F-2

TIME SERIES OF PERCENT METHANE PLOT, PASSIVE GAS VENT GV-2

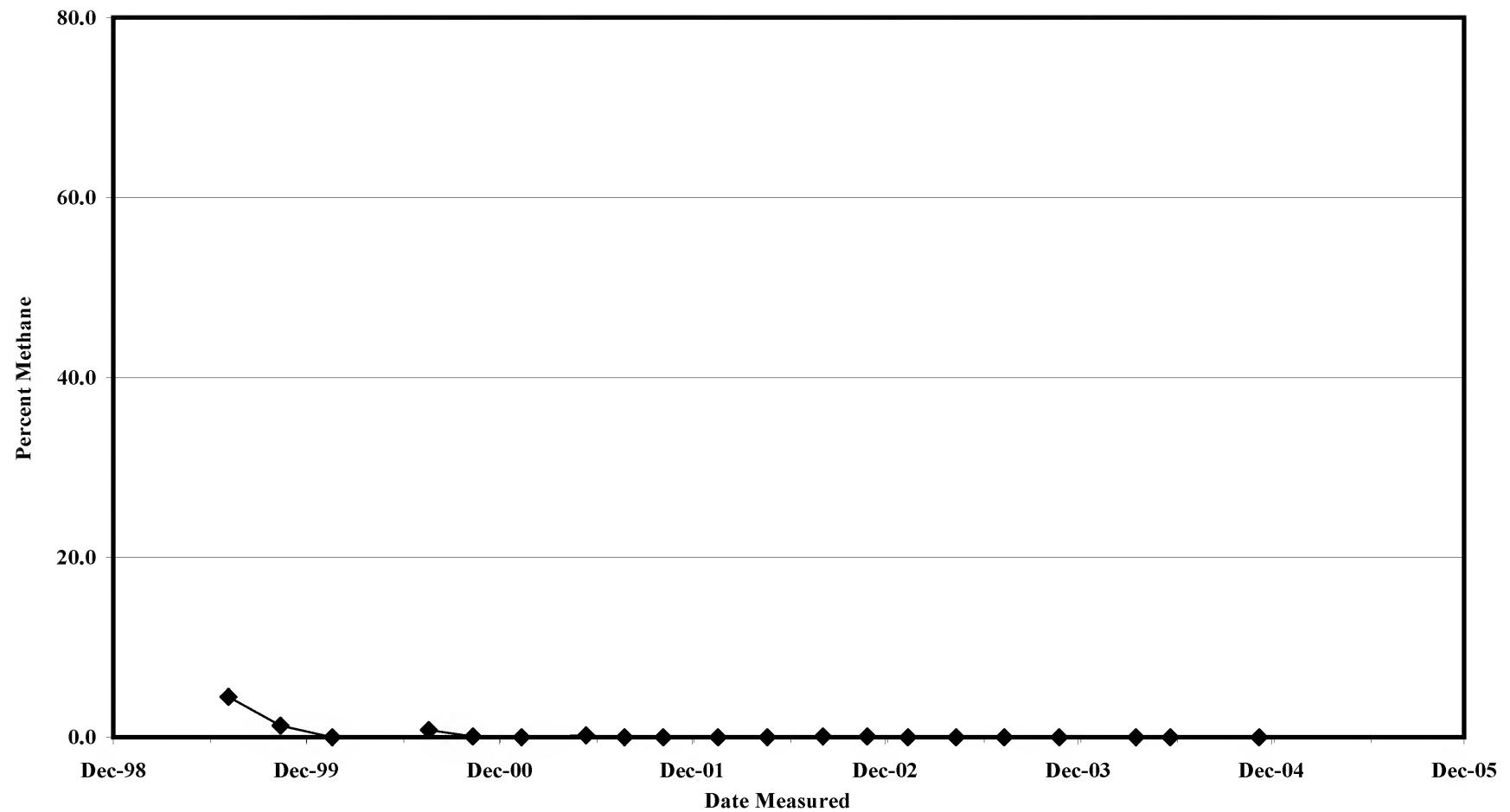


FIGURE F-3

TIME SERIES OF PERCENT METHANE PLOT, PASSIVE GAS VENT GV-3

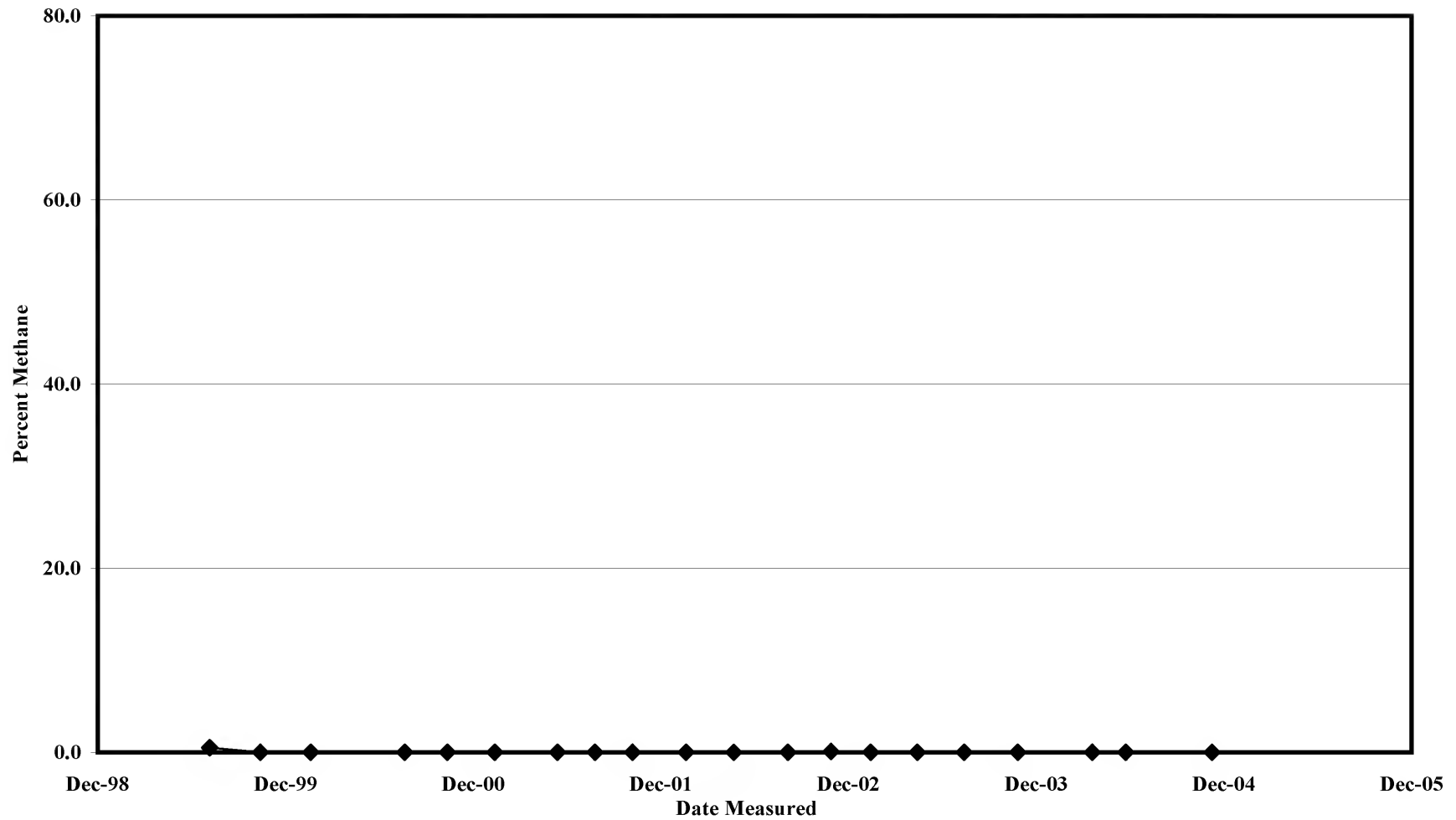


FIGURE F-4

TIME SERIES OF PERCENT METHANE PLOT, PASSIVE GAS VENT GV-4

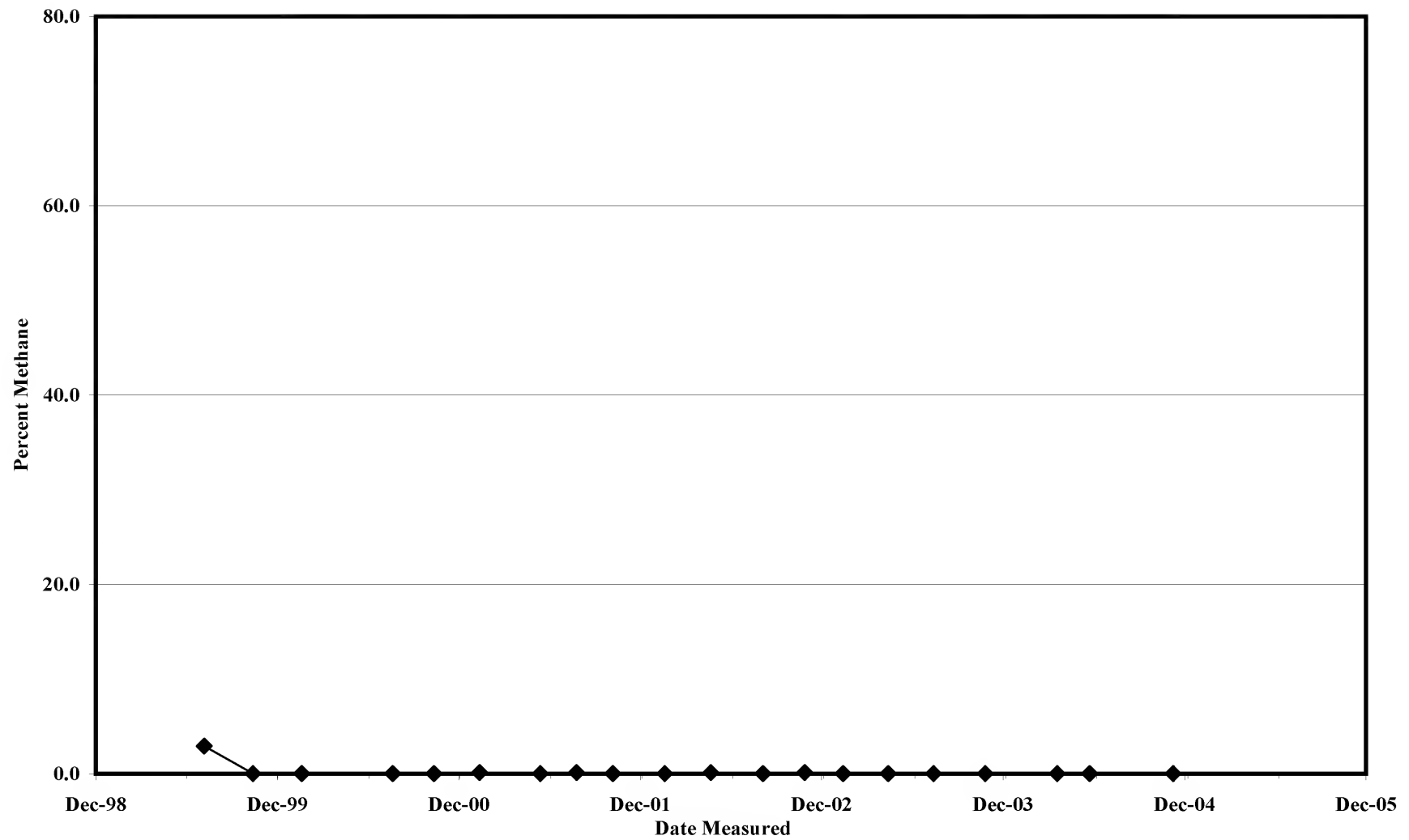


FIGURE F-5

TIME SERIES OF PERCENT METHANE PLOT, PASSIVE GAS VENT GV-5

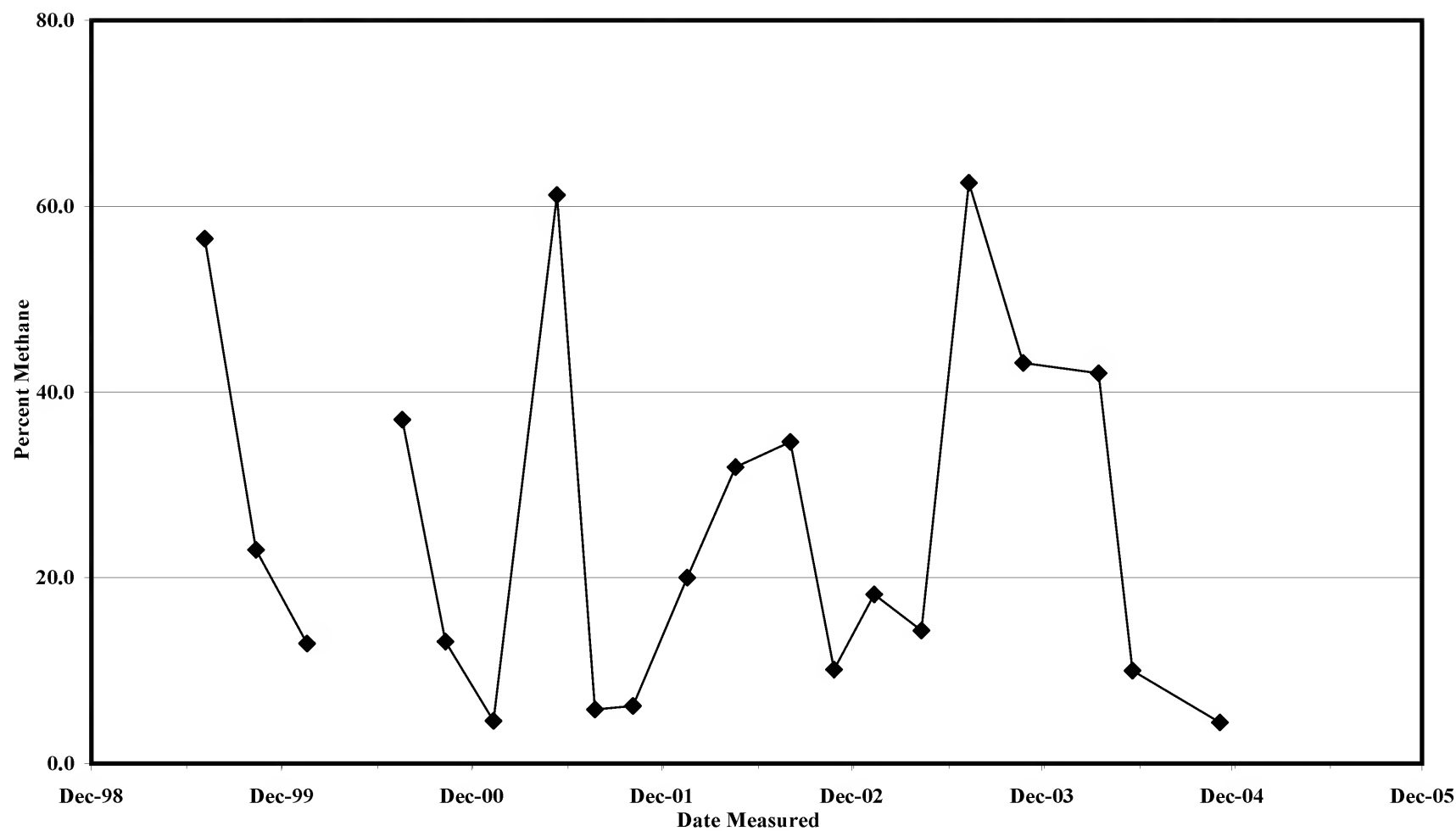


FIGURE F-6

TIME SERIES OF PERCENT METHANE PLOT, PASSIVE GAS VENT GV-6

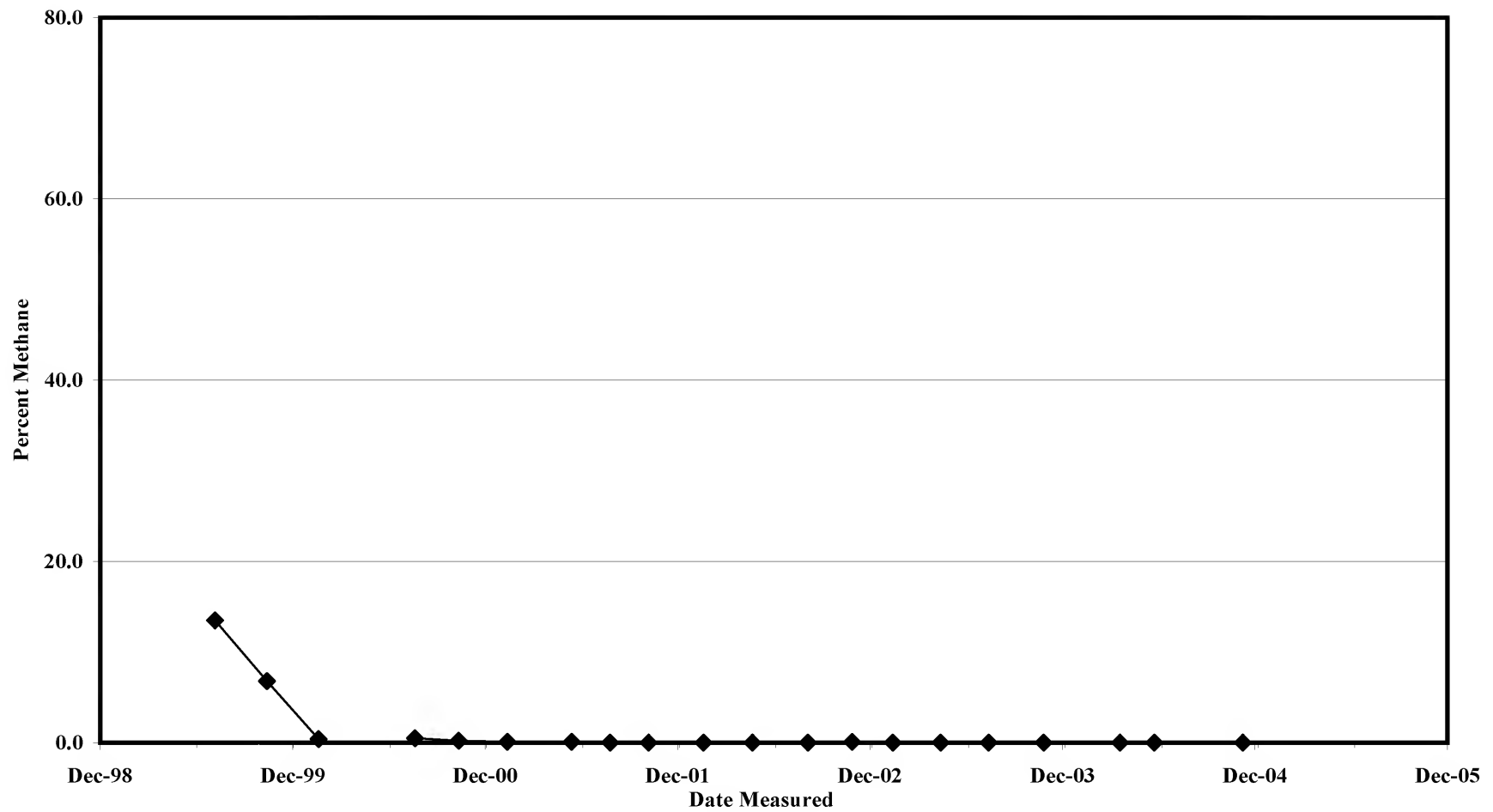


FIGURE F-7

TIME SERIES OF PERCENT METHANE PLOT, PASSIVE GAS VENT GV-7

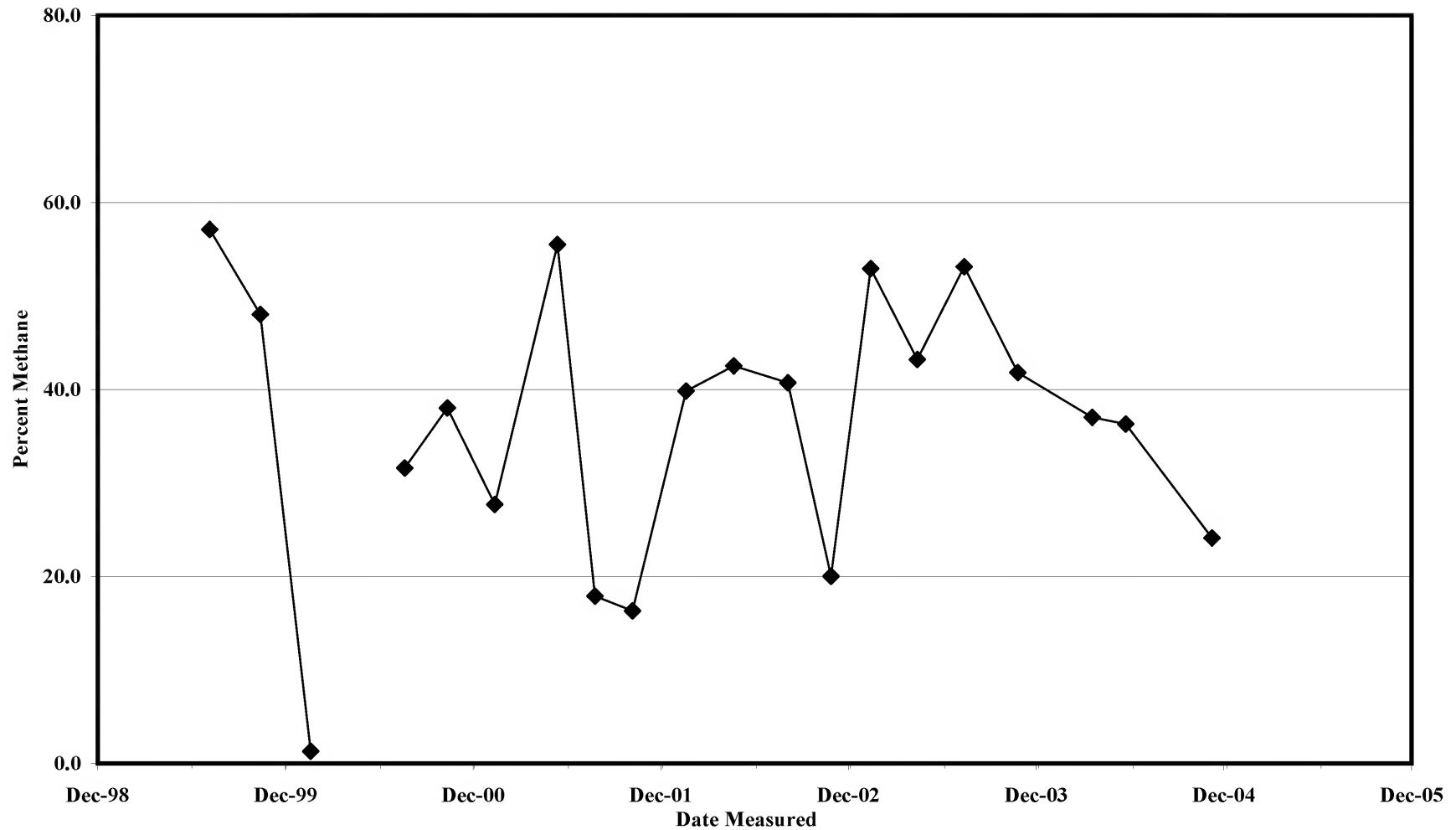


FIGURE F-8

TIME SERIES OF PERCENT METHANE PLOT, PASSIVE GAS VENT GV-8

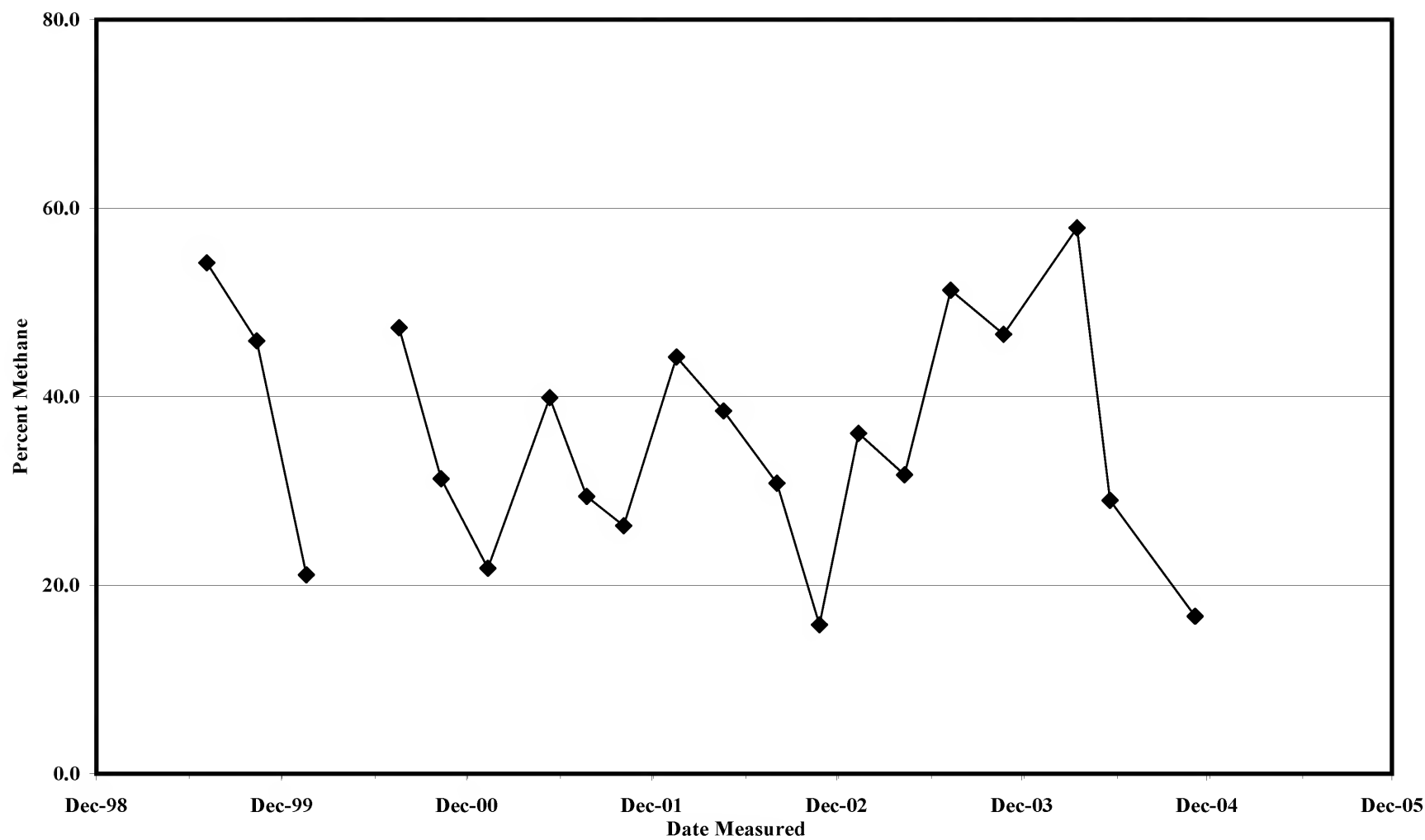


FIGURE F-9

TIME SERIES OF PERCENT METHANE PLOT, PASSIVE GAS VENT GV-9

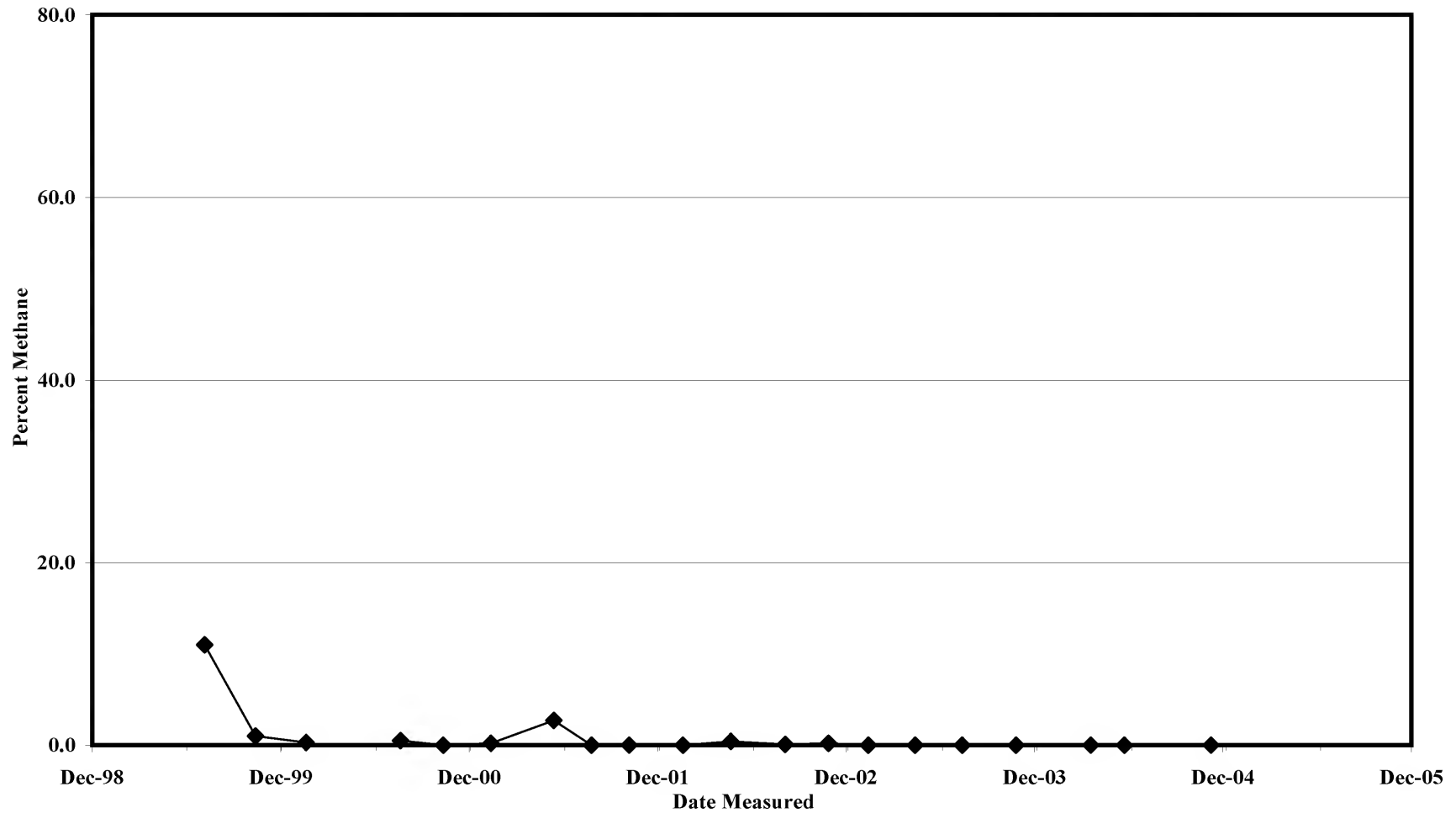


FIGURE F-10

TIME SERIES OF PERCENT METHANE PLOT, PASSIVE GAS VENT GV-10

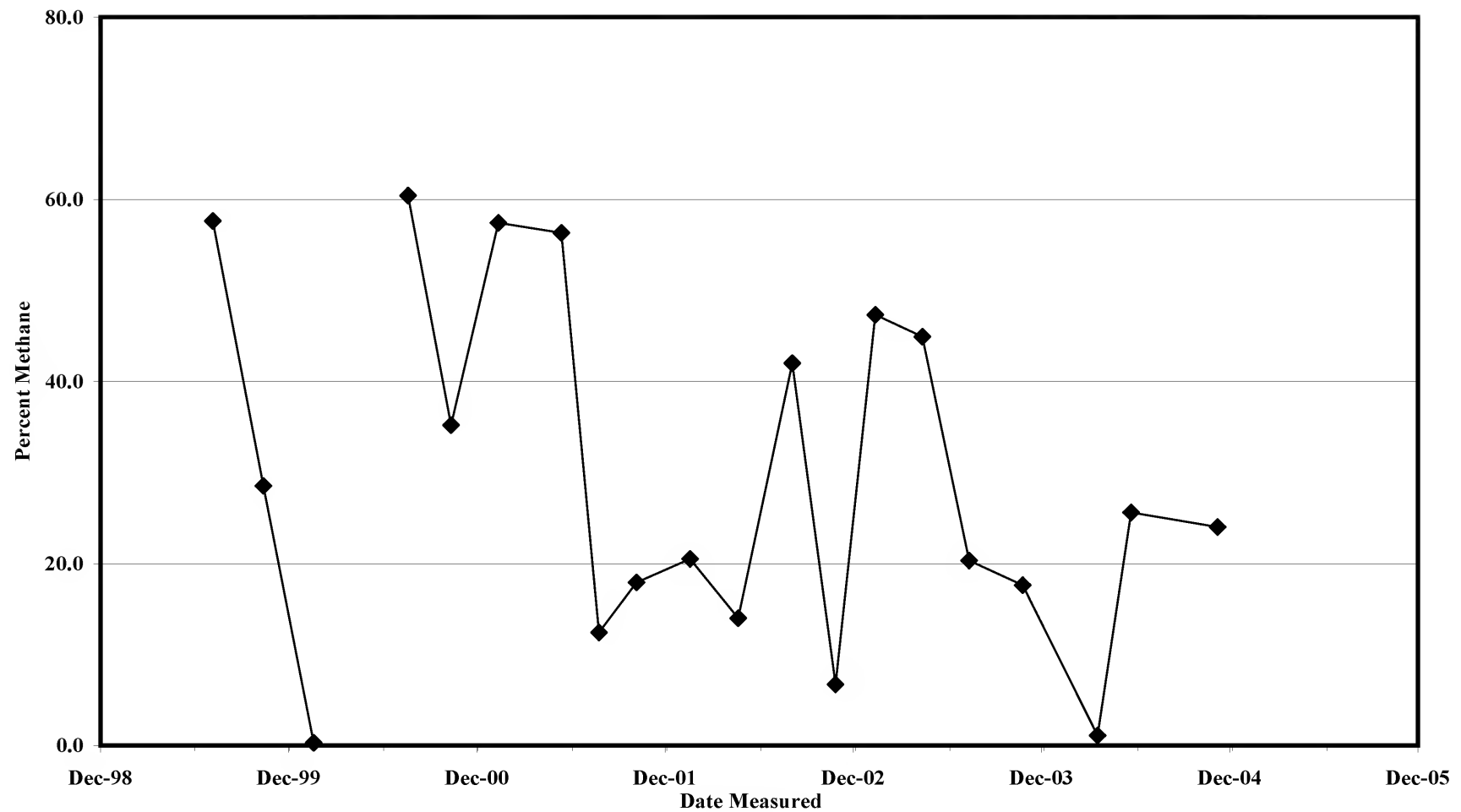


FIGURE F-11

TIME SERIES OF PERCENT METHANE PLOT, PASSIVE GAS VENT GV-11

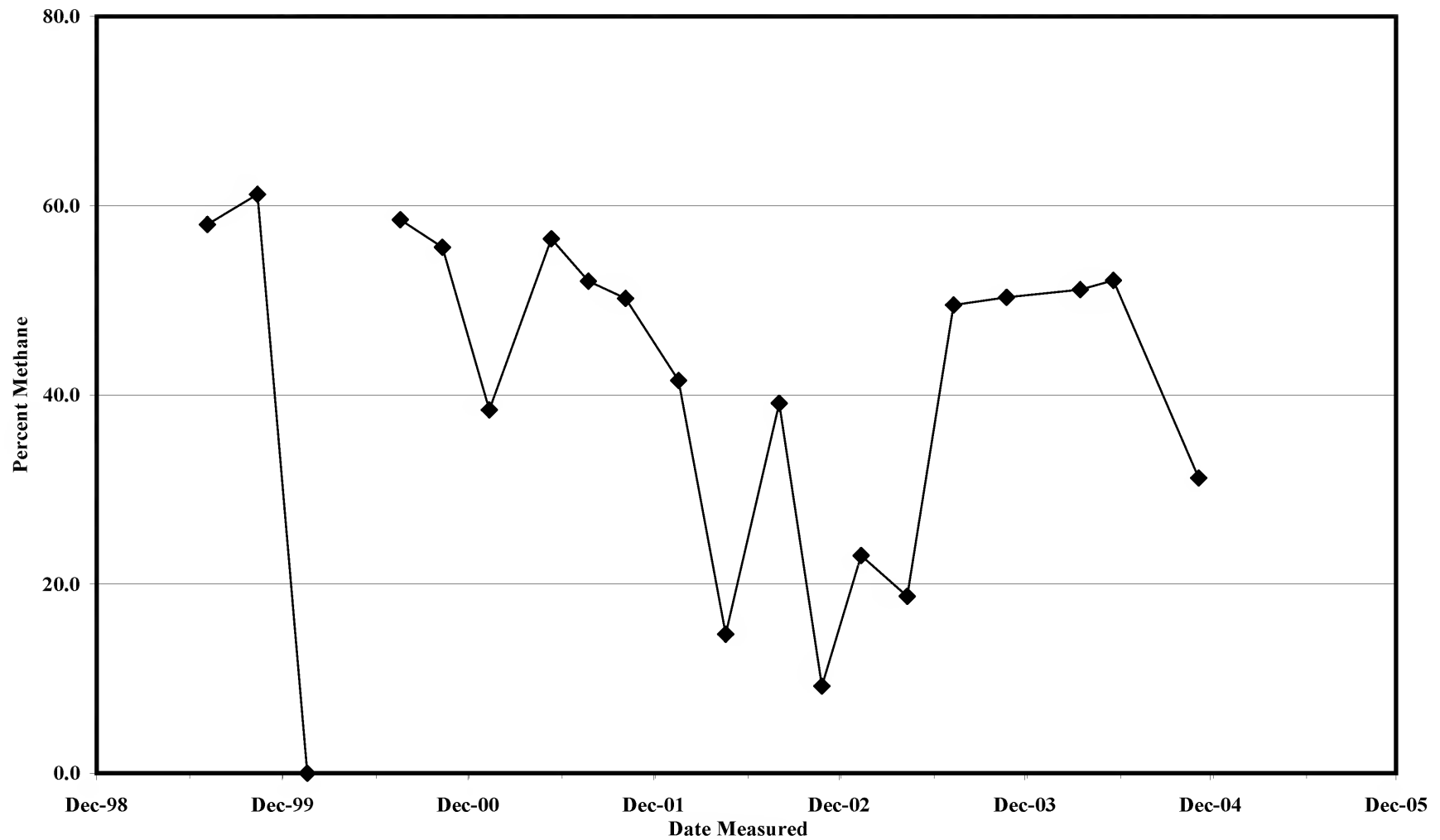


FIGURE F-12

TIME SERIES OF PERCENT METHANE PLOT, PASSIVE GAS VENT GV-12

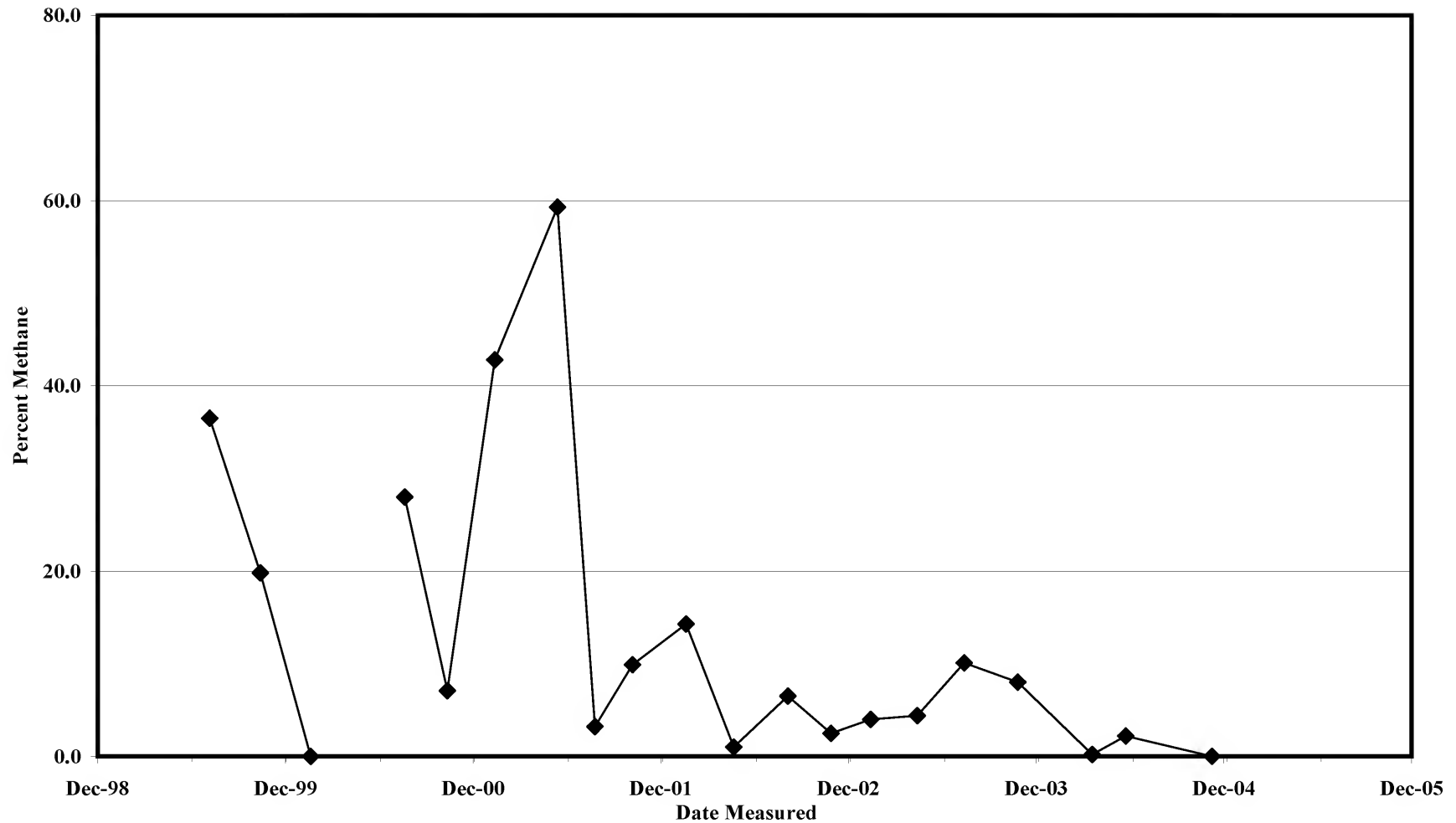


FIGURE F-13

TIME SERIES OF PERCENT METHANE PLOT, PASSIVE GAS VENT GV-13

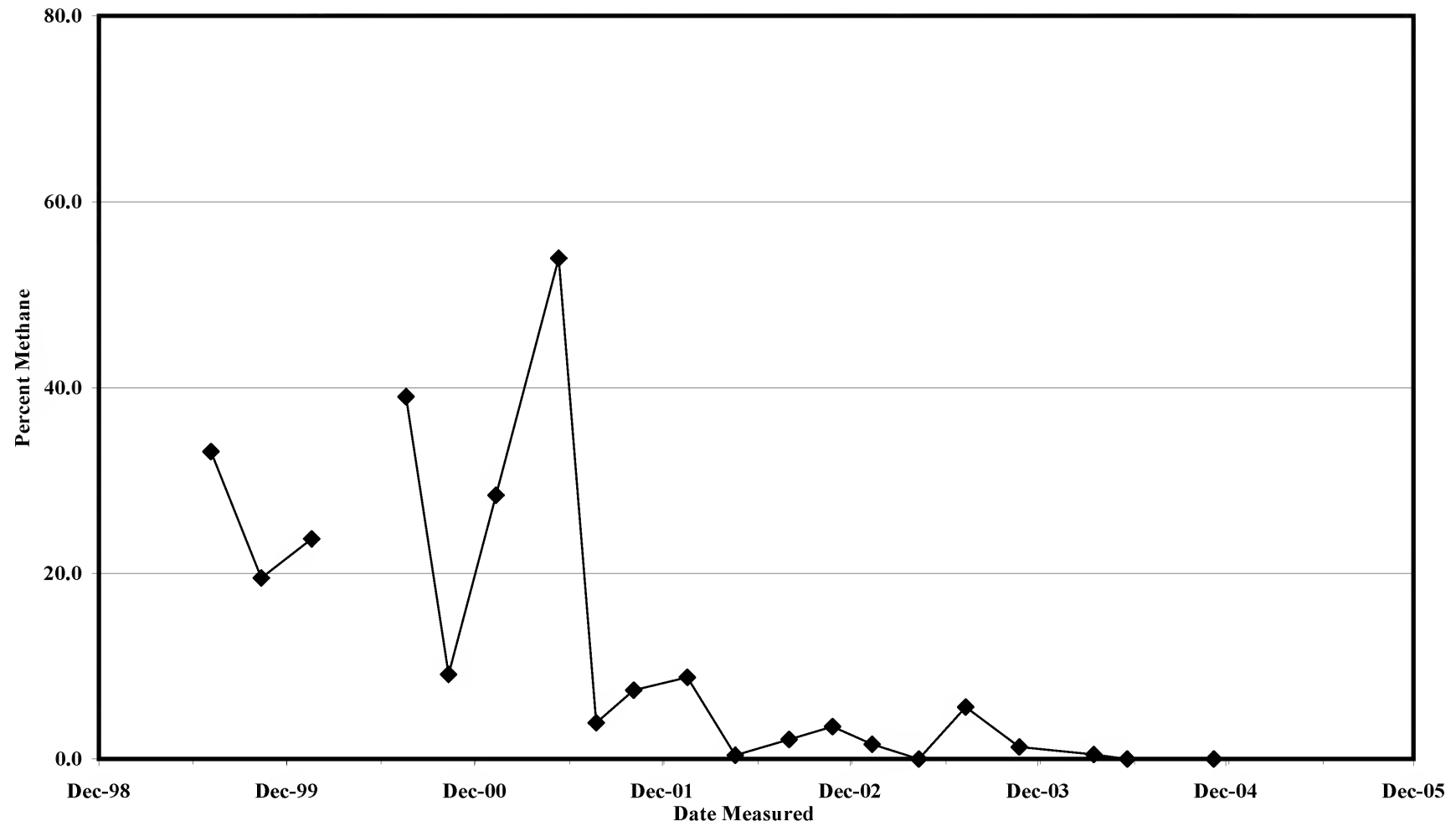


FIGURE F-14

TIME SERIES OF PERCENT METHANE PLOT, PASSIVE GAS VENT GV-14

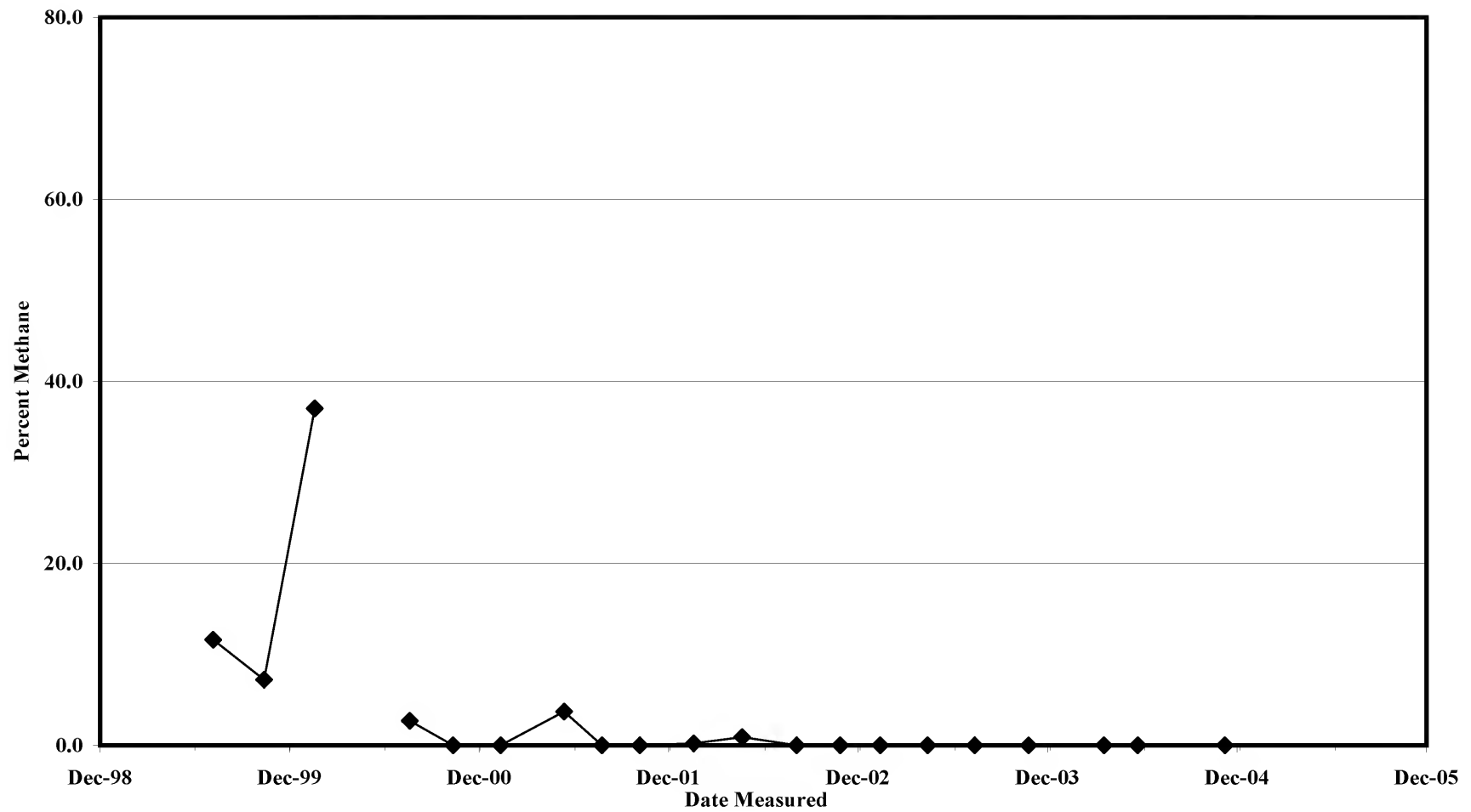


FIGURE F-15

TIME SERIES OF PERCENT METHANE PLOT, PASSIVE GAS VENT GV-15

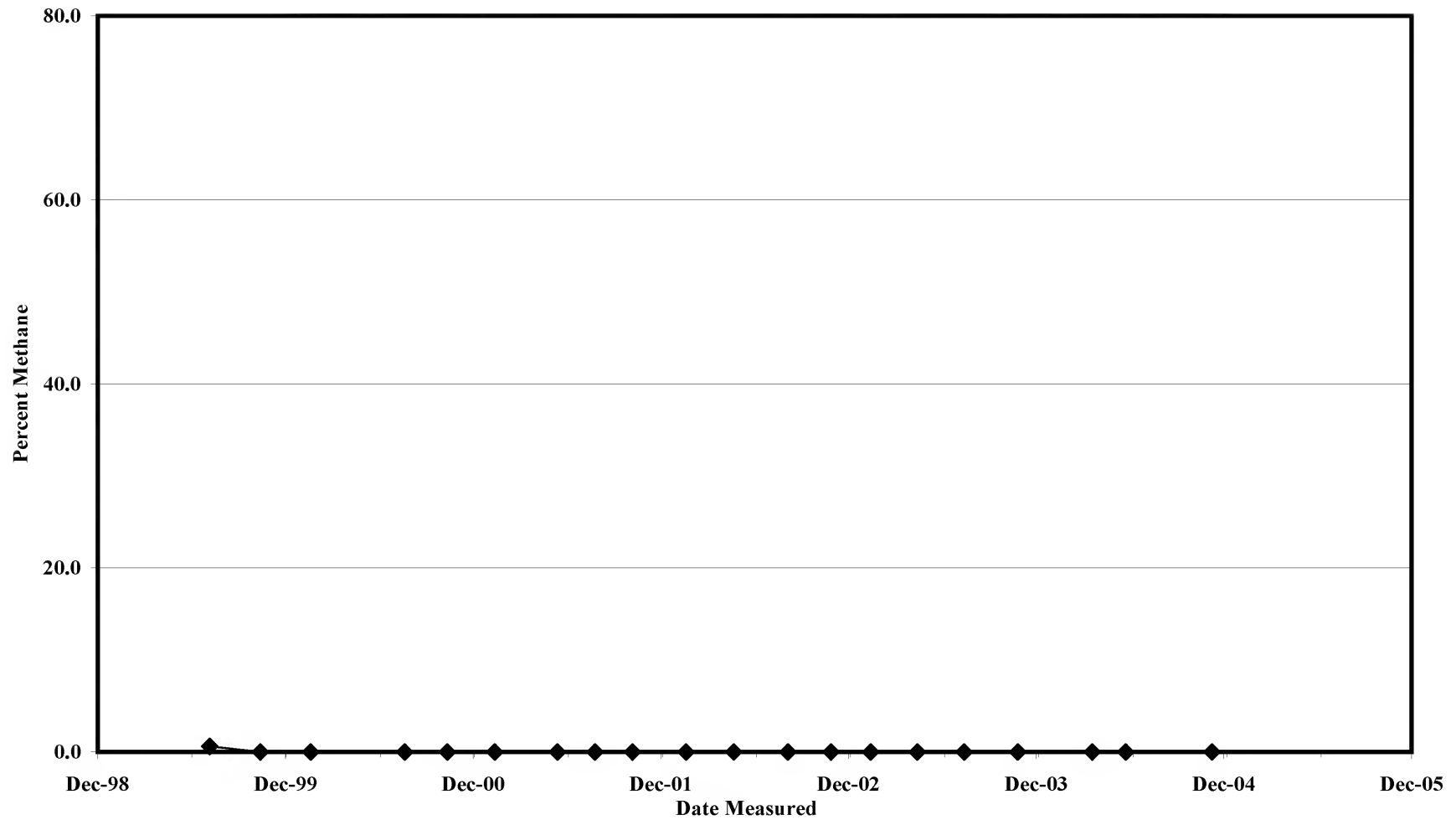


FIGURE F-16

TIME SERIES OF PERCENT METHANE PLOT, PASSIVE GAS VENT GV-16

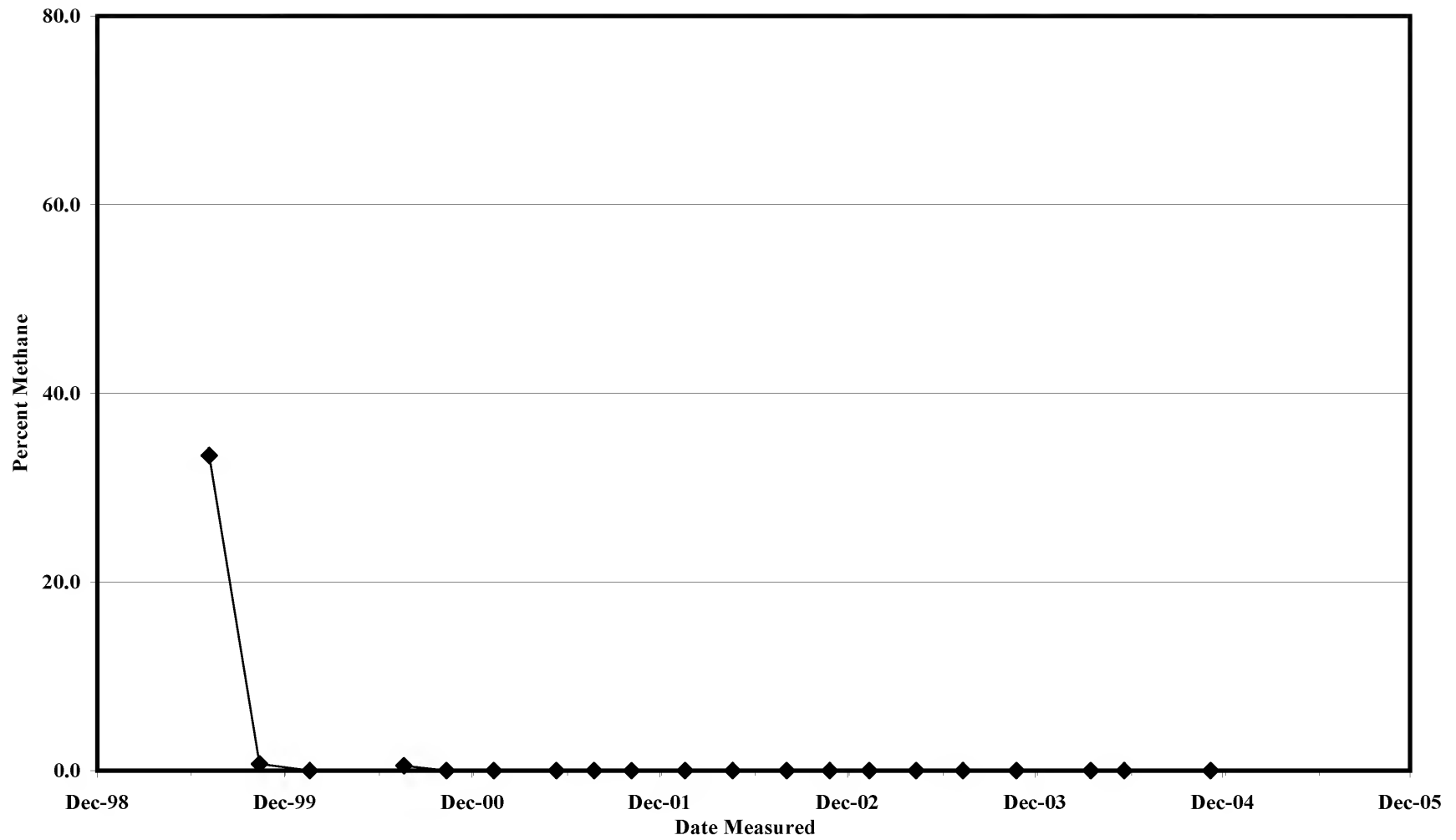


FIGURE F-17

TIME SERIES OF PERCENT METHANE PLOT, PASSIVE GAS VENT GV-17

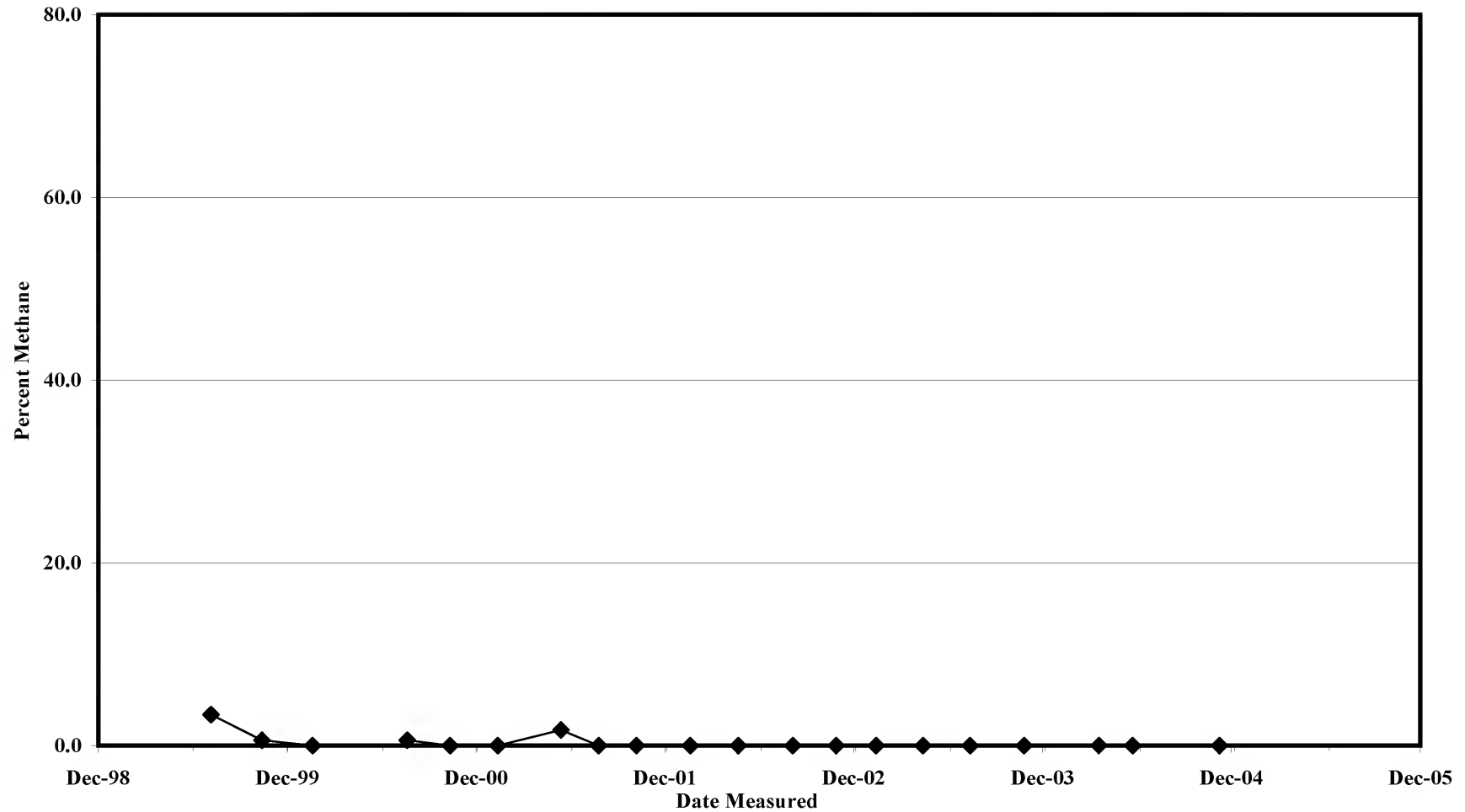


FIGURE F-18

TIME SERIES OF PERCENT METHANE PLOT, PASSIVE GAS VENT GV-18

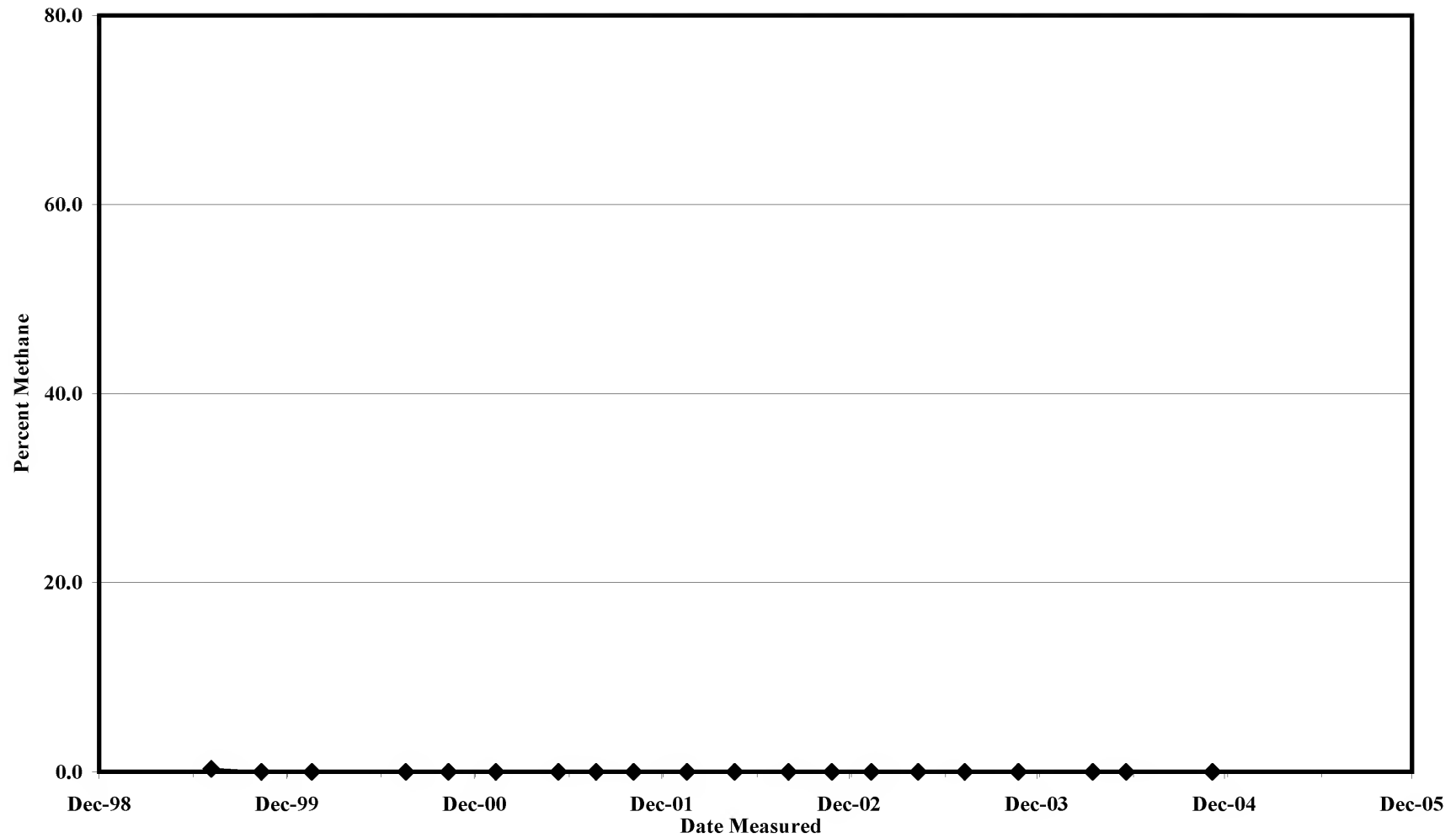


FIGURE F-19

TIME SERIES OF PERCENT METHANE PLOT, PASSIVE GAS VENT GV-19

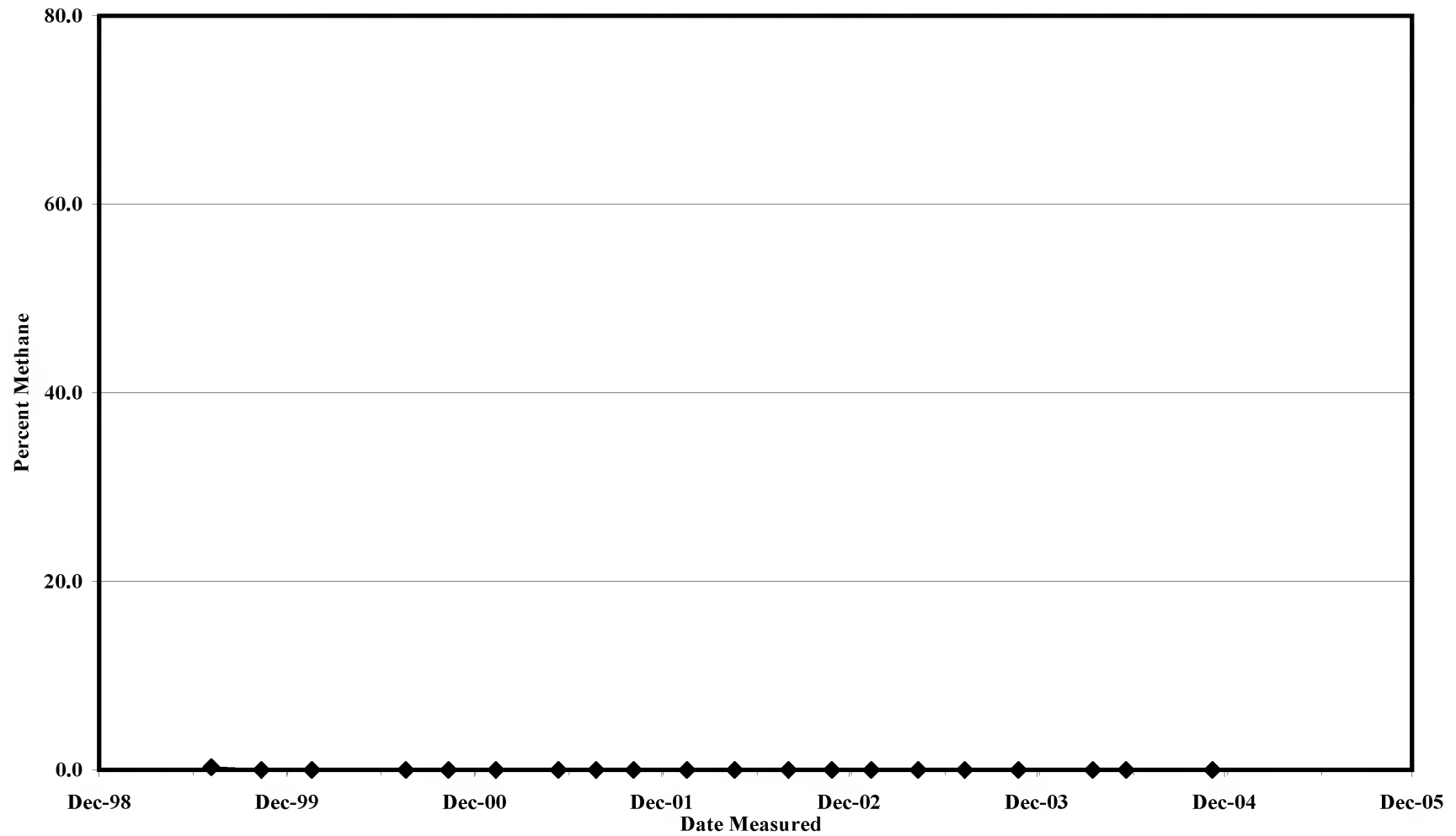


FIGURE F-20

TIME SERIES OF PERCENT METHANE PLOT, LANDFILL GAS MONITORING WELL LGMW1-1

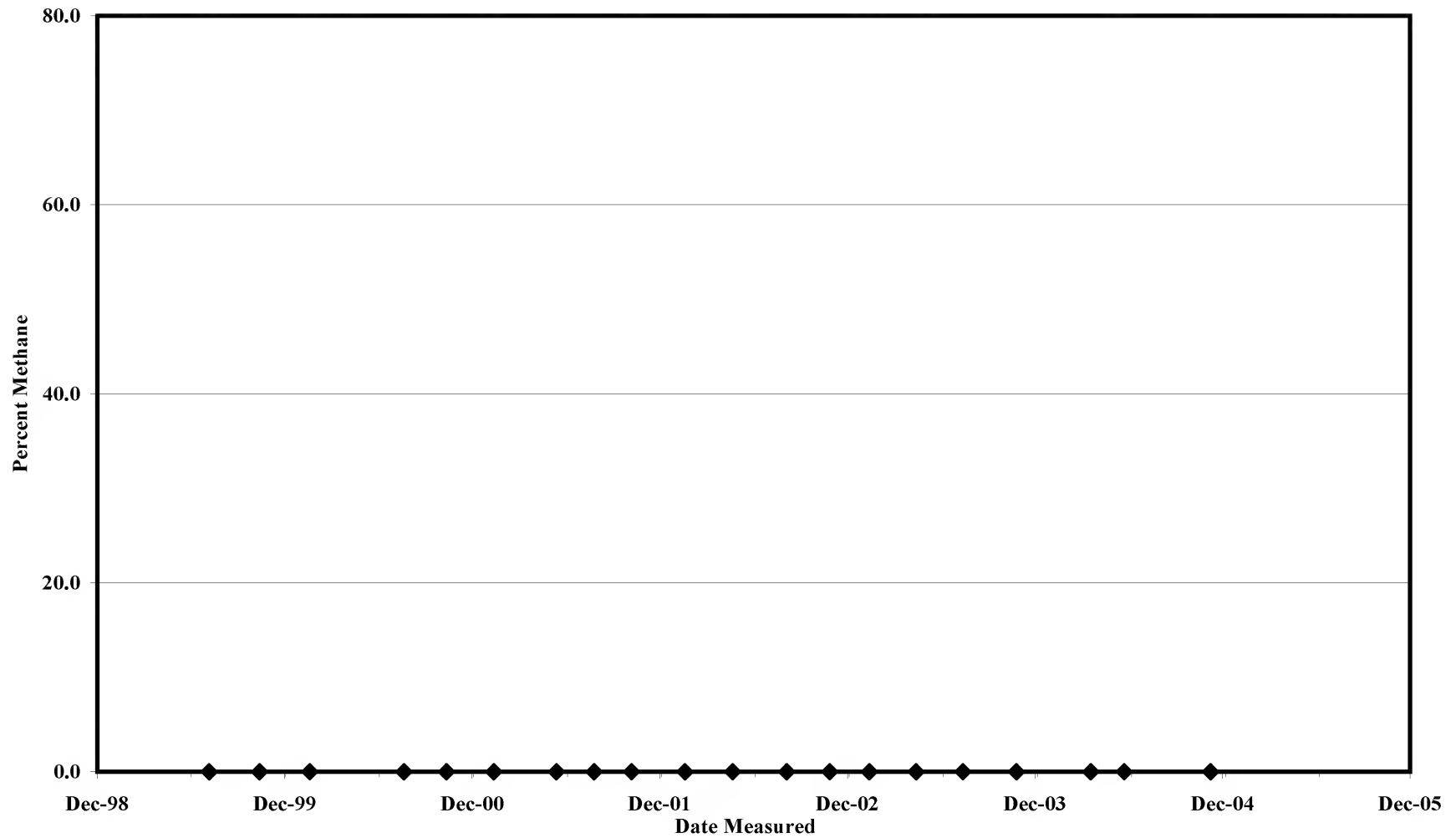


FIGURE F-21

TIME SERIES OF PERCENT METHANE PLOT, LANDFILL GAS MONITORING WELL LGMW1-2

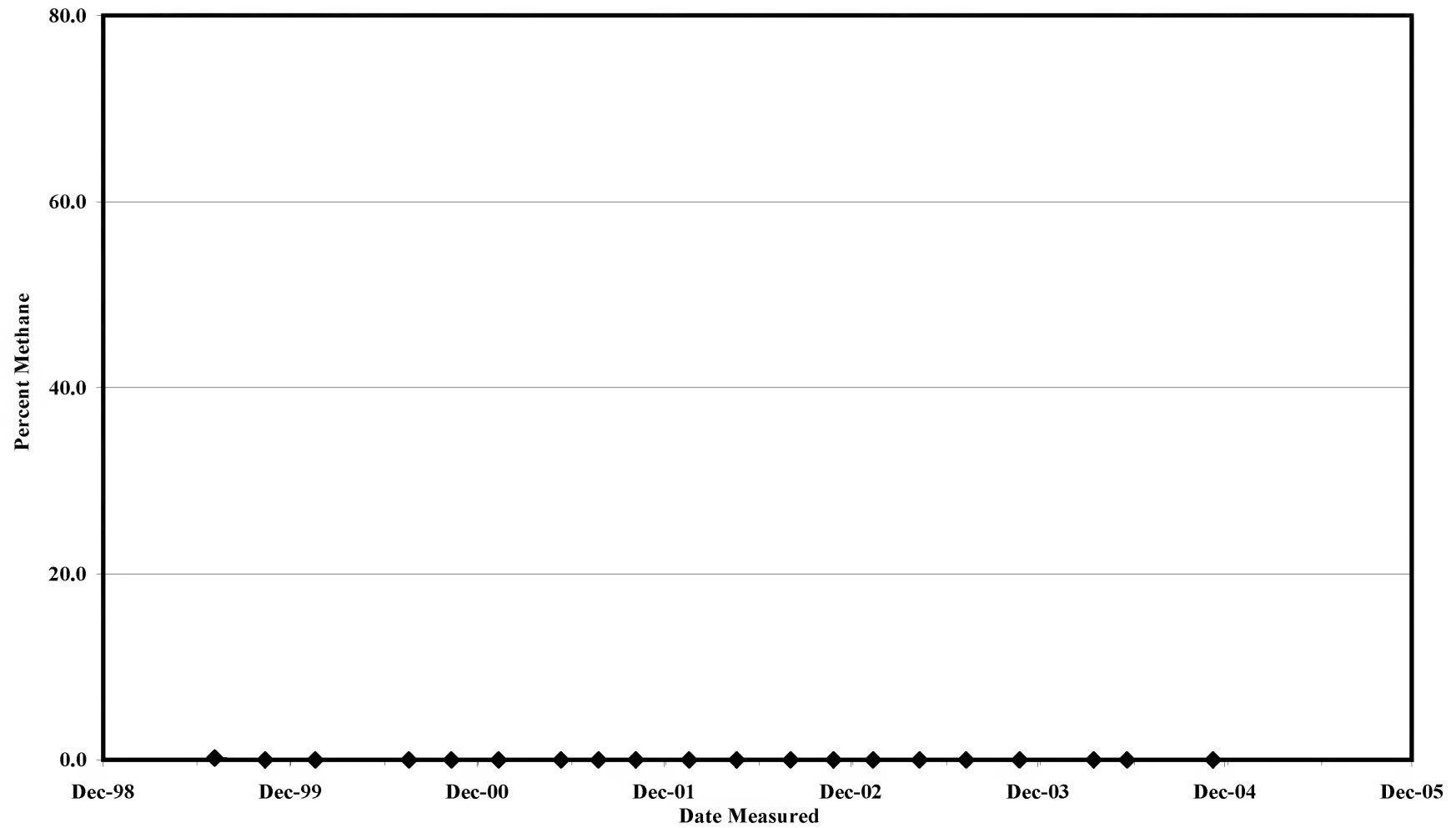


FIGURE F-22

TIME SERIES OF PERCENT METHANE PLOT, LANDFILL GAS MONITORING WELL LGMW1-3

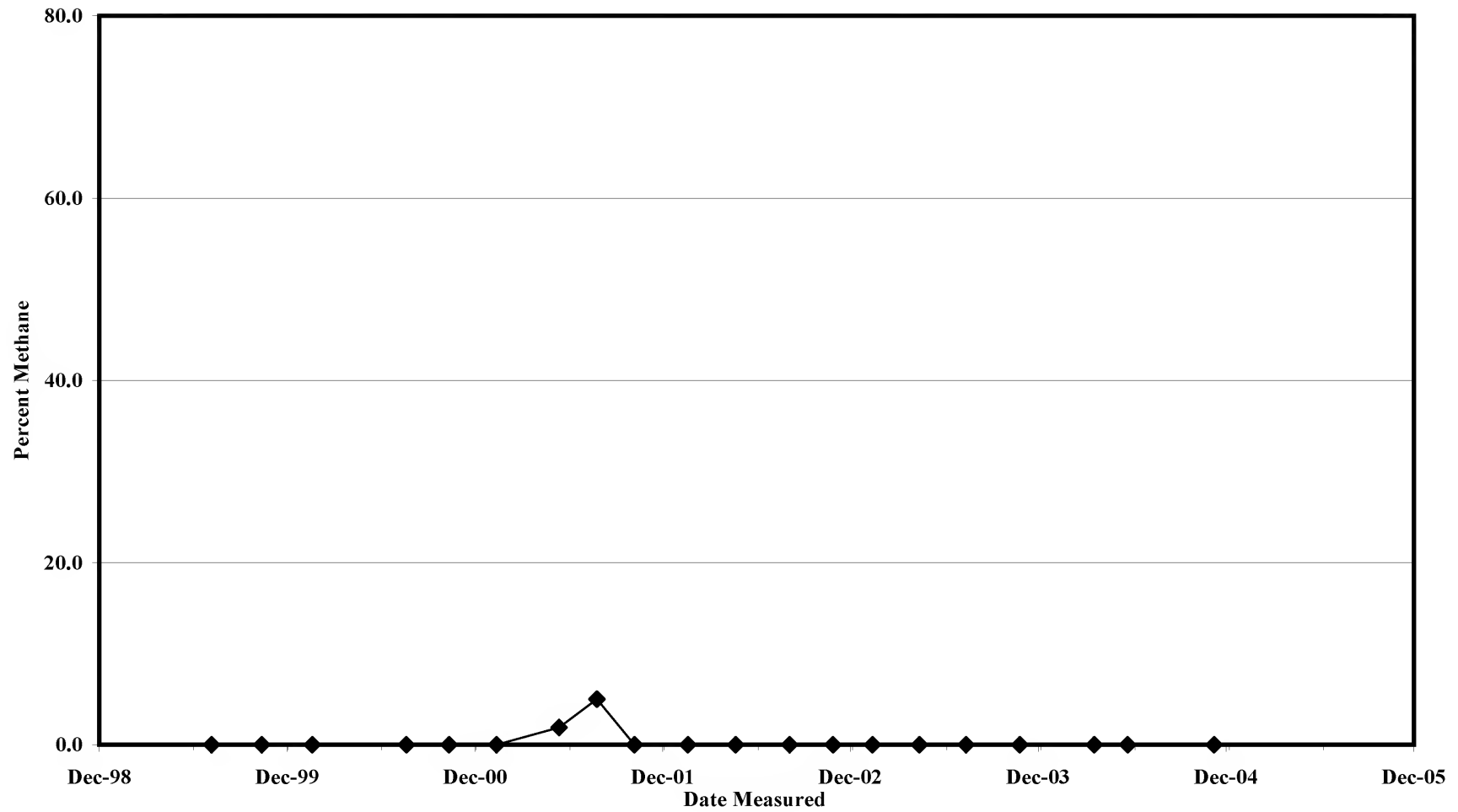
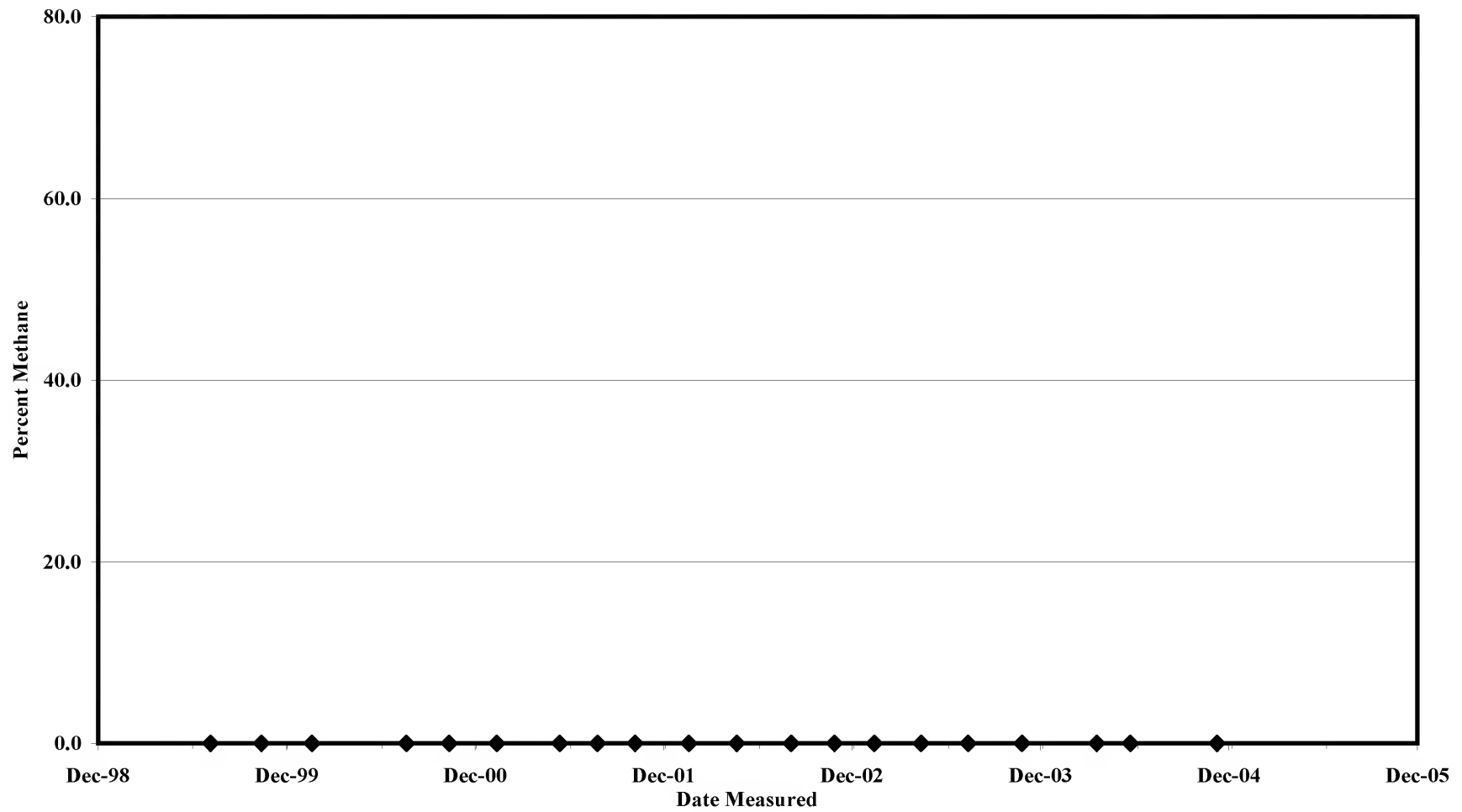


FIGURE F-23

TIME SERIES OF PERCENT METHANE PLOT, LANDFILL GAS MONITORING WELL LGMW1-4



APPENDIX G

MONITORING WELL W1-1R DOCUMENTATION

TETRA TECH FW, INC.

LOG OF BORING W1-1R

(Sheet 1 of 1)

Client: US NAVY

Drilling Company: West Hazmat

Project: SITE 1 LANDFILL

Drilling Method: Hollow Stem Auger

Project Number: 1990.086E

Sampling Method: Split-Spoon

Location: FORMER NAS MOFFETT FIELD, CA

Borehole Diameter: 10 in. 0-25.5ft.

Geologist: L. Dudus

Northing: (NAD83)

Date Started: August 13, 2004

Easting: (NAD83)

Date Completed: August 13, 2004

Ground Surface Elevation: AMSL (NAVD88)

Total Depth: 25.5 Feet bgs

Top of Casing Elevation: AMSL (NAVD88)

| Depth (ft.) | Water Level | Well/Boring Completion | Well/Boring Remarks | PID Readings PPM | USCS | Graphic Log | LITHOLOGIC DESCRIPTION | Elevation (ft.) |
|-------------|-------------|------------------------|--------------------------------------------------------------|------------------|-------|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| 0 | | | Concrete Surface Seal (0 - 1 ft. bgs) | | | | GRAVELLY LEAN CLAY, dark olive gray (5Y 3/2), moist, 70% fines with medium plasticity, 20% fine subangular gravel, 10% medium to coarse subangular sand | |
| 1.0 | | | Type I-II Cement Grout (1.0 - 11.2 ft. bgs) | | CL | | | |
| 2.5 | | | 4-inch PVC well casing (2.5 ft ags to 14.3 ft. bgs) | | | | | |
| 8.46 | | | Static Water Level of 8.46 ft. was Measured on 8/16/04 | | CH | | FAT CLAY, black (5Y 2.5/1), moist, 90% fines with high plasticity, 10% fine subrounded gravel, trace of fine to coarse sand, trace of roots | |
| 11.2 | | | 2 ft. Hydrated Bentonite Seal (11.2 - 13.3 ft. bgs) | | CL | | GRAVELLY LEAN CLAY, dark olive gray to black (5Y 2.5/1 to 5Y 3/2), moist, 70% fines with medium plasticity, 20% fine angular to subrounded gravel, 10% fine to coarse sand, no roots | |
| 13.3 | | | #2/12 Sand Filter Pack (13.3 - 25.5 ft. bgs) | | CL/ML | | SILTY CLAY with SAND, olive brown (2.5Y 4/3), moist, 85% fines with low plasticity, 10% fine to coarse sand, 5% fine angular to subrounded gravel | |
| 14.3 | | | 4-inch 0.010 Slot Wire-Wrap PVC Screen (14.3 - 24.3 ft. bgs) | | ML/CL | | CLAYEY SILT with SAND, olive brown (2.5Y 4/3), moist, 70% non-plastic fines, 20% fine to coarse sand, 10% fine angular to sub rounded gravel | |
| 24.3 | | | Silt Trap (24.3 - 24.7 ft. bgs) | | SM | | SILTY SAND, olive gray (5Y 5/2), wet, 60% fine sand, 40% non-plastic fines | |
| 25.5 | | | | | | | END OF BORING AT 25.5 FT. W1-1R surface completion consists of a 5' x 10" round steel protective casing with an outer locking cap that extends approximately 2.9 ft. ags. The protective casing is set in a 2' x 2' concrete pad with four bollards surrounding it. | |

Notes: Reviewed by D. Goldman on 10/19/2004
bgs = below ground surface
AMSL = above mean sea level
NAD 83 = North American Datum 1983
NAVD 88 = North American Vertical Datum 1988

GPS Coordinates - Lat: 37 24 52.091 N - Long: 122 03 18.007 W
Boring log of EA2-3 was derived from a Cone Penetrometer Test (CPT) log

CTO-024-WELL CON W/O SS CTO 86 SITE 1.GPJ FSTRW_SA.GDT 11/5/04

ORIGINAL
File with DWR

Page 1 of 1

Owner's Well No. W1-1R

Date Work Began 8-13-04, Ended 8-13-04

Local Permit Agency CCUWD

Permit No. 04W00577 Permit Date 8-11-04

STATE OF CALIFORNIA
WELL COMPLETION REPORT

Refer to Instruction Pamphlet

No. e015981

DWR USE ONLY — DO NOT FILL IN

| | |
|----------------------------|-----------|
| STATE WELL NO./STATION NO. | |
| LATITUDE | LONGITUDE |
| APN/TRS/OTHER | |

| ORIENTATION (°) | | VERTICAL | HORIZONTAL | ANGLE | (SPECIFY) |
|--------------------------------------------|-------|--------------------------------------------|------------|-------|-----------|
| | | <input checked="" type="checkbox"/> | | | |
| DEPTH FROM SURFACE | | DRILLING METHOD <u>HSA</u> FLUID <u>NA</u> | | | |
| FL | to FL | DESCRIPTION | | | |
| Describe material, grain size, color, etc. | | | | | |
| 0 | 15.5 | CLAY WITH GRAVEL, BLACK | | | |
| 15.5 | 17 | SILTY CLAY WITH SAND OLIVE BEN | | | |
| 17 | 21 | CLAYEY SILT WITH SAND OLIVE BEN | | | |
| 21 | 25.5 | SILTY SAND OLIVE GRAY | | | |

WELL OWNER

Name U.S. NAVY

Mailing Address 1220 PACIFIC HIGHWAY
SAN DIEGO CA 92132

CITY STATE ZIP

Address FORMER N4S MOFFETT FIELD

City MOFFETT FIELD

County SANTA CLARA

APN Book 116 Page 18 Parcel 008

Township 6S Range 2W Section 10

Latitude 37.25 46.9 NORTH Longitude 122.03 05 WEST

DEG. MIN. SEC. DEG. MIN. SEC.

LOCATION SKETCH

NORTH

PERIMETER ROAD

WEST

EAST

SOUTH

SITE 1 LANDFILL

20' W1-1R

Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map. Use additional paper if necessary. PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (°)

☒ NEW WELL

MODIFICATION/REPAIR

— Deepen

— Other (Specify)

DESTROY (Describe Procedures and Materials Under "GEOLOGIC LOG")

PLANNED USES (°)

WATER SUPPLY

— Domestic — Public

— Irrigation — Industrial

MONITORING ☒

TEST WELL

CATHODIC PROTECTION

HEAT EXCHANGE

DIRECT PUSH

INJECTION

VAPOR EXTRACTION

SPARGING

REMEDIATION

OTHER (SPECIFY)

TOTAL DEPTH OF BORING 25.5 (Feet)

TOTAL DEPTH OF COMPLETED WELL 24.7 (Feet)

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER 21 (FL) BELOW SURFACE

DEPTH OF STATIC 8.46 TOC

WATER LEVEL 8.46 (FL) & DATE MEASURED 8/16/04

ESTIMATED YIELD NA (GPM) & TEST TYPE NA

TEST LENGTH NA (Hrs.) TOTAL DRAWDOWN NA (FL)

* May not be representative of a well's long-term yield.

| DEPTH FROM SURFACE | | BORE-HOLE DIA. (Inches) | CASING (S) | | | | | ANNULAR MATERIAL | | | | | | |
|--------------------|-------|-------------------------|------------|-------------|-----------|--|------------------|----------------------------|-------------------------|---------------------------|------|--|--|--------------|
| FL | to FL | | TYPE (°) | | | | MATERIAL / GRADE | INTERNAL DIAMETER (Inches) | GAUGE OR WALL THICKNESS | SLOT SIZE IF ANY (Inches) | TYPE | | | |
| | | BLANK | SCREEN | CON- DUCTOR | FILL PIPE | | | | | | | | | CE- MENT (°) |
| 0 | 14.3 | 10 | X | | | | PVC | 4 | 40 | NA | | | | |
| 14.3 | 24.3 | 10 | X | | | | PVC WIREWRAP | 4 | 40 | 0.010 | | | | |
| 24.3 | 24.7 | 10 | X | | | | PVC | 4 | 40 | NA | | | | |

| DEPTH FROM SURFACE | | ANNULAR MATERIAL | | | |
|--------------------|-------|------------------|-----------------|----------|-------------------------|
| FL | to FL | CE- MENT (°) | BEN- TONITE (°) | FILL (°) | FILTER PACK (TYPE/SIZE) |
| 0 | 11.2 | | | | |
| 11.2 | 13.3 | | | | |
| 13.3 | 25.5 | | | | 2 1/2 SAND |

ATTACHMENTS (°)

- ☒ Geologic Log
- ☒ Well Construction Diagram
- Geophysical Log(s)
- Soil/Water Chemical Analyses
- Other

ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.

NAME TETRA TECH FW, INC.

(PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)

ADDRESS 1232 COLUMBIA ST, SUITE 500 SAN DIEGO CA 92101

CITY STATE ZIP

Signed A. J. Foz West HAZMAT DATE SIGNED 10-8-04 819548

WELL DRILLER/AUTHORIZED REPRESENTATIVE C-57 LICENSE NUMBER



WELL CONSTRUCTION COMPLETION NOTICE

FCE 158A (09-05-02)

| | | | | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|--------------------------------------------|------------------|
| Inspector: <u>Thiemann</u> | | Date of Inspection: <u>8/13/04</u> | | Permit: <u>04WC0577</u> | |
| Well Owner: <u>US Navy</u> | | Owner Well No.: <u>WI-1R</u> | | Well Registration No.: <u>06502W11C023</u> | |
| Address of Well Site: <u>N/O Patrol Rd E/O Book Moffett Field</u> | | | | City or County: <u>()</u> | |
| Drilling Company: <u>Test America</u> | | Consultant: <u>Tetra Tech FW</u> | | | |
| Cond. Bore: | Conductor Depth: | Conductor Diameter & Material: | TD: <u>25.5</u> | Boring Diameter: <u>10"</u> | BOC: <u>24.8</u> |
| Casing Diameter & Material: <u>4" PVC</u> | Slot Size: <u>010</u> | Screen Interval(s): <u>Wire Wrap PVC</u> | <u>24.8 - 14.3</u> | | |
| Filter Pack Material: <u>2/16</u> | Filter Pack Interval(s): <u>25.5</u> | Bent: | Seal Depth: | | |
| Sealing Material: <input checked="" type="checkbox"/> Neat Cement <input type="checkbox"/> 10 Sack Sand Slurry <input type="checkbox"/> Bentonite Slurry <input type="checkbox"/> Other (See Comments) | | Drilling Method: <input checked="" type="checkbox"/> HSA <input type="checkbox"/> Mud rotary <input type="checkbox"/> Other (See Comments) <input type="checkbox"/> Direct Push <input type="checkbox"/> Air Rotary | | | |
| Well Type: <input checked="" type="checkbox"/> GW Monitoring <input type="checkbox"/> GW Extraction <input type="checkbox"/> Vadose Monitoring <input type="checkbox"/> Vadose Extraction <input type="checkbox"/> Cathodic <input type="checkbox"/> Domestic <input type="checkbox"/> Agricultural <input type="checkbox"/> Municipal/Industrial <input type="checkbox"/> Elevator <input type="checkbox"/> Other (See Comments) | | | | | |
| Well constructed according to provisions of Santa Clara Valley Water District Permit? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (See Comments) | | | | | |
| Well Location: <u>124</u> ft. N / S: <u>NE/O N. Perimeter Rd</u> ft. E / W: | | | | | |
| GPS Coordinates - Lat: <u>37 25 46.958 N</u> Long: <u>122 03 05.05/</u> | | | | | |
| Comments: <u>1496 feet NNW/O N. Patrol Rd</u> <u>N. Perimeter AKA Book</u> | | | | | |
| Distribution: ORIGINAL-Permit File; YELLOW-City/County; PINK-Well File; GOLDNENROD-Permittee | | | | | |

COAST SURVEYING, INC.

15031 PARKWAY LOOP, SUITE B, TUSTIN, CA 92780-6527 • (714) 918-6266 • FAX (714) 918-6277
MOFFETT FEDERAL AIRFIELD MONITORING WELLS

Date Surveyed: November 17, 2004

| Station ID | Northing | Easting | Elevation Measure Point | Elevation Steel Casing | Elevation Ground | Elevation Concrete Pad |
|------------|------------|------------|----------------------------|---------------------------|---------------------|---------------------------|
| W1-1R | 1982659.55 | 6111220.30 | 7.52 | 7.91 | 4.9 | 5.28 |

NOTE: The measure point is an ink mark on the top, north side, of the 3" PVC well casing.

Coordinates are CCS NAD 83, Zone 3, U.S. Survey Feet.

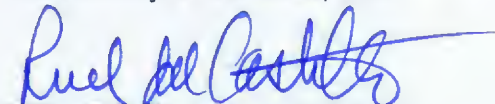
Elevations are NAVD 88, U.S. Survey Feet.

Positions were determined using NASA Ames Research Center Control Monument ARC-32, a disc set flush in concrete, 6.5' north of northeast edge of pavement (Patrol Road) and 75' east of Perimeter Road, and 2.5' west of chain link fence.

Coordinates and elevations provided by Tetra Tech FW, Inc. for "NASA ARC-32" are:

| Northing | Easting | Elevation |
|------------|------------|-----------|
| 1981291.82 | 6111764.27 | 1.85 |

Prepared by me or under my direct supervision
this 23rd day of November, 2004.



RUEL DEL CASTILLO, PLS 4212
REGISTRATION EXPIRES 6/30/06



[illegible]

5750 Almaden Expressway, San Jose, CA 95118 (408) 265-2600

TO BE COMPLETED BY DISTRICT

| | | |
|--------------------------------------|---------------------------------|----------------------------------|
| District Permit No.: <u>04W00577</u> | Date Issued: <u>8-11-04</u> | Well Registration No.: |
| Geologic Setting: <u>1</u> | Expiration Date: <u>2-11-05</u> | Driller's Log No.: <u>015981</u> |

TO BE COMPLETED BY OWNER AND DRILLER

| | | |
|-----------------------------------------------------------------------|-------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| Well Owner: <u>U.S. Navy</u> | Property Owner: <u>NASA</u> | Name of Business at Well Site: <u>Former NAS Moffett Field</u> |
| Well Owner's Mailing Address: <u>1220 Pacific Highway</u> | Property Owner's Mailing Address: <u>NASA M/S 218-1</u> | Address of Well Site: <u>Site 1 Landfill</u> |
| City, State, Zip: <u>San Diego, CA 92132-5190</u> | City, State, Zip: <u>Moffett Field, CA 94025</u> | City, State, Zip: <u>Moffett Field, CA 94035</u> |
| Telephone No. & Contact Name: <u>Rock Weissenborn 619-532-0952</u> | Telephone No. & Contact Name: <u>Don Chuck 650-604-0237</u> | Telephone No.: |
| Owner's/Consultant's Well No.: <u>W1-1R</u> | | Assessor's Parcel Number of Well Site: Book: <u>116</u> Page: <u>18</u> Parcel: <u>008</u> |
| Consultant (Company): <u>TetraTech FW, Inc.</u> | Drilling Company: <u>West Hazmat</u> | |
| Address: <u>1230 Columbia Street, Suite 500</u> | Address: <u>1016 East Katella Avenue</u> | |
| City, State, Zip: <u>San Diego, CA 92101</u> | City, State, Zip: <u>Anaheim, CA 92805</u> | |
| Telephone No.: <u>619-471-3525</u> | Telephone No.: <u>714-939-6850</u> | C-57 License No.: <u>819548</u> |
| <input type="checkbox"/> Check if address or phone number has changed | | <input type="checkbox"/> Check if address or phone number has changed |

THIS SECTION TO BE COMPLETED FOR ALL MONITORING WELLS OR EXTRACTION/RECOVERY WELLS

| | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CASE NAME: <u>Former NAS Moffett Field</u> | |
| Oversight Agency: <u>EPA/RWQCB</u> If under S.C.V.W.D oversight, list Case Number(s): | |
| Type of monitoring device: <input checked="" type="checkbox"/> Groundwater <input type="checkbox"/> Vadose Type of extraction device: <input type="checkbox"/> Groundwater <input type="checkbox"/> Vadose Monitoring well use: <input type="checkbox"/> Depth <input checked="" type="checkbox"/> Quality <input type="checkbox"/> Chloride Nested Well: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Note: If Nested Well is proposed, a separate permit is needed for each casing. | <u>Dennis Goldman</u> Signature of Responsible Professional (No substitution of signature will be accepted) <u>Dennis Goldman</u> Print Name <u>#4509</u> Registration No. Civil Engineer OR Registration No. Geologist |

| |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Estimated Depth of Completed Well: <input checked="" type="checkbox"/> Less than 50 ft. <input type="checkbox"/> 50 to 300 ft. <input type="checkbox"/> Over 300 ft. <input type="checkbox"/> Other: _____ |
| Purpose of Well: <input type="checkbox"/> Domestic <input type="checkbox"/> Municipal/Industrial <input type="checkbox"/> Agricultural <input checked="" type="checkbox"/> Monitoring <input type="checkbox"/> Cathodic Protection <input type="checkbox"/> Other: _____ |
| *Monitoring wells are those constructed for the purpose of obtaining repetitive water level measurements and/or repetitive air samples for analysis. |
| Well is to be Constructed: <input type="checkbox"/> In a public sidewalk <input type="checkbox"/> In a public road <input type="checkbox"/> On public property <input checked="" type="checkbox"/> On private property <input type="checkbox"/> On SCVWD property* |
| Within 50 ft. of the top of a creek* <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Within 50 ft. of any existing well <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| Within 50 ft. of sanitary sewer <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Within 150 ft. of a cesspool or seepage pit <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Within 100 ft. of a pit privy, septic tank, leachfield <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Other wells exist on this property? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| *See General Condition E, page 2. Status: <input checked="" type="checkbox"/> Active <input type="checkbox"/> Inactive <input type="checkbox"/> Abandoned |

CERTIFICATION BY WELL OWNER/AGENT AND DRILLER/AGENT

I certify that the information given above is correct. I certify that the well will be constructed in compliance with the conditions of this permit (See Page 2), and Santa Clara Valley Water District Ordinance 90-1. I also certify that a right of entry/encroachment agreement has been formalized between the well owner and property owner, if parties differ. I understand that it is my responsibility as the well owner, to notify this District of any changes in the purpose of this well, from that, which is indicated on this application. NOTE: All applicable signatures must be present before permit will be processed.

Donald M. Chuck
Signature of Property Owner/Agent

8/4/2004
Date

DONALD M. CHUCK
Print Name of Property Owner/Agent

R. Weissenborn
Signature of Well Owner/Agent

08/04/04
Date

R. Weissenborn
Print Name of Well Owner/Agent

Bryle for West Hazmat
Signature of Well Driller/Agent

8-3-04
Date

BRYLE BARTEMA
Print Name of Driller/Agent

IMPORTANT: A minimum 24-hour notice must be given to SCVWD Well Inspection Dept. prior to installing the annular seal. Call (408) 265-2607 Ext. 2660. For weekends, holidays, or after hours call (408) 265-2607 Ext. 2120.

AUG 09 2004

DISTRICT WELL PERMIT NO.: 04W00577

Based on information on this application and attachment(s) hereto (if any) and subject to approval noted below, permission is hereby granted to construct (drill) the described well. Permission to start work may be withheld until a field check verifies all statements made on application by Permittee and is also subject to the "General" and "Special" Conditions stated below.

COUNTY OF SANTA CLARA DEPARTMENT OF ENVIRONMENTAL HEALTH APPROVAL

Domestic Water Supply Wells Only (Note: D. E. H. Approval must be granted before this application will be accepted by S.C.V.W.D.)

Date: _____ **Approved By:** _____, R.E.H.S.

Approved As Submitted: ☐ **Approved As Corrected:** ☐

SITE PLAN

A SITE PLAN MUST BE ATTACHED TO THIS APPLICATION

THE SITE PLAN MUST BE SUBMITTED ON 8 1/2" X 11" PAPER

THE SITE PLAN MUST CONTAIN:

1. Location of site features, including major buildings, landscaped areas, tank fields, existing wells, etc.
2. North arrow and scale
3. Location of proposed well with dimensions in feet from well to nearest cross streets

GENERAL CONDITIONS

- A. SCVWD (Telephone 408-265-2607, Ext. 2660) MUST BE NOTIFIED A MINIMUM OF ONE WORKING DAY BEFORE CONSTRUCTION OF THE ANNULAR SEAL. An authorized District representative must be on site to witness the construction of the annular seal. This requirement may be waived by an authorized District representative. If the District waives the inspection requirement, the District may request the Permittee(s) to furnish certification, under penalty of perjury, that the well was constructed in accordance with the District Well Standards and with the permit conditions.
- B. This Permit is valid only for the purpose specified herein. Well construction methods authorized under this Permit may not be changed except by written approval of an authorized District representative, and only if the District believes that such a change will result in equal or superior compliance with the District and State Well Standards (e.g. if the District representative finds that site conditions warrant such a change).
- C. This Permit is only valid for the Assessor's Parcel Number indicated on it.
- D. This Permit may be voided if it contains incorrect information. If the permit is voided after work has begun, the well or boring that was constructed under this permit must be destroyed in accordance with District and State Well Standards.
- E. If any work associated with this permit will take place within 50 feet of the top of the banks of a stream, water course, or on SCVWD Property, an encroachment or construction permit must be granted by the District's Community Projects Review Unit (telephone 408-265-2607 Ext. 2589).
- F. Before the well constructed under this permit can be used as a drinking water source, its use must be approved by the regulatory agency with authority over such use (typically the Santa Clara County Department of Environmental Health or the State of California, Department of Water Resources, Office of Drinking Water).
- G. If the well constructed under this permit cannot be or is not being used for its intended purpose, permittee is hereby required to destroy the well according to the District Well Standards and under permit from the District. Any test holes drilled under this permit must be destroyed within 24-hours of completion of testing activities. Destruction activities must be completed according to SCVWD standards. SCVWD must be notified a minimum of 24-hours prior to destruction.
- H. Within 60 days of the completion of the well construction activities, the driller or consultant identified on this permit shall fully complete State of California DWR Form 188 and mail the original to the District's Wells and Water Production Unit.
- I. The Permittee(s) shall assume entire responsibility for all activities and uses under this Permit and shall indemnify, defend, and hold the District, its officers, agents, and employees, free and harmless from any and all expense, cost, and liability in connection with or resulting from, the granting or exercise of this Permit including, but not limited to, property damage, personal injury, and wrongful death.
- J. Permittees are required to be in full compliance with Cal/OSHA California Labor Code Section 6300.
- K. A current C-57 Water Well Drilling Contractor's License is required for the construction of all wells.
- L. Permittee, permittee's contractors, consultants or agents shall be responsible to assure that all materials or waters generated during drilling, well construction, well development, pump testing, or other activities associated with this Permit, will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statutes regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on- or off-site storm sewers, dry wells, or waterways. Such materials/waters must not be allowed to move off the property where the work is being completed.
- M. The driller and consultants (if applicable) shall have an active copy of their Worker's Compensation Insurance on file with District.
- N. This Permit shall expire if not exercised within 180 calendar days of its approval, unless an extension of the permit expiration date is granted by an authorized District representative.
- O. This permit must be kept on-site during the completion of all activities associated with it and shall immediately be presented to an authorized District representative upon request.

Special Conditions:

Community Projects Review Unit Approval: (if needed)

Approved By:

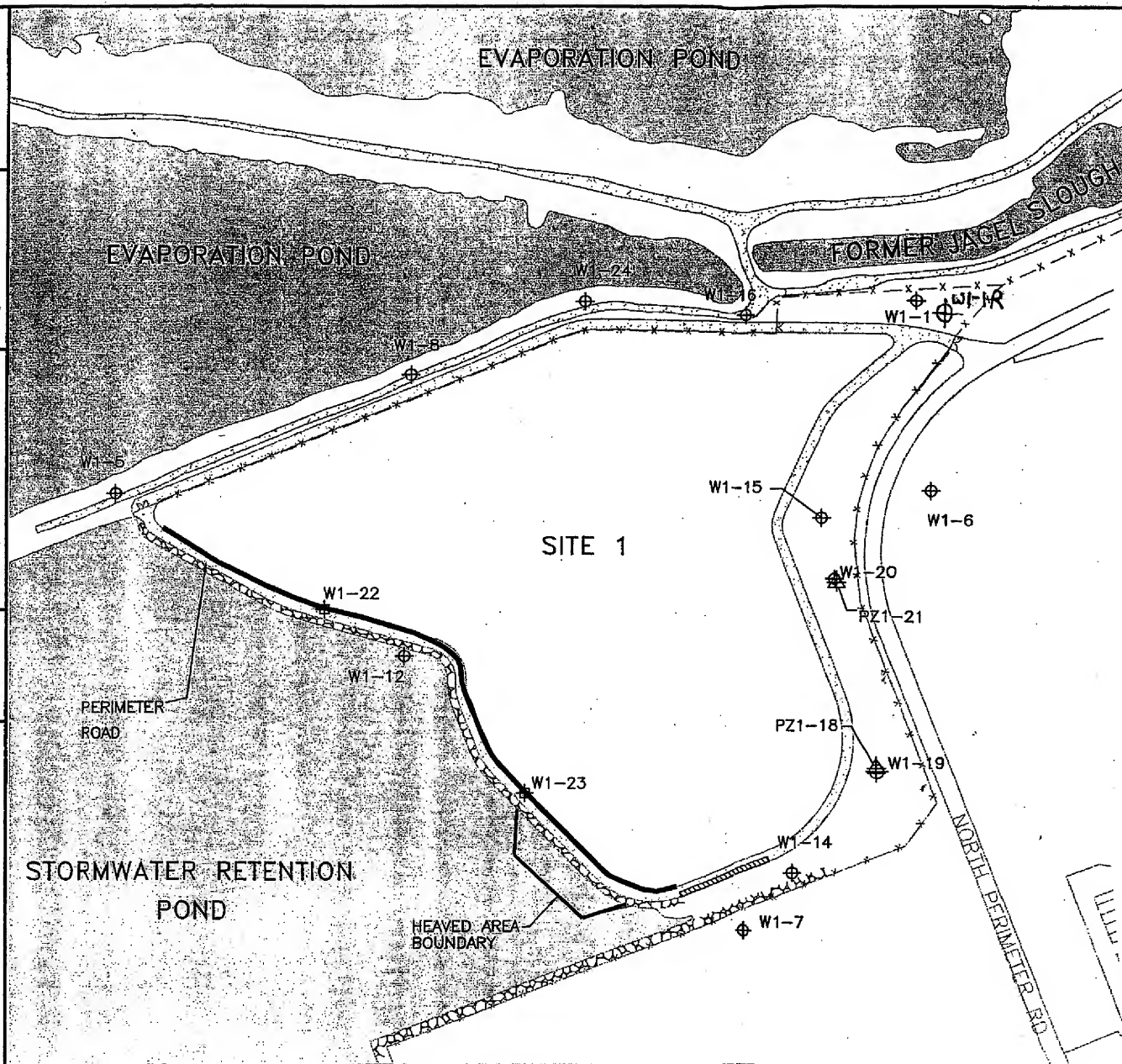
CPRU Permit No.:

Date:

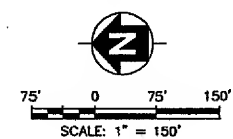
PLEASE ALLOW 10 WORKING DAYS TO PROCESS THIS APPLICATION

| | | | | |
|----------------|----------------|-----------------|-----------------------|--------------------------|
| DRAWN BY: KLD | CHECKED BY: BB | APPROVED BY: DG | DCH: FWSD-RAC-03-2983 | DRAWING NO: 03298351.DWG |
| DATE: 09/19/03 | REV: | CTO #048 | | |

E:\1990-RAC\CTO-0048\032983\03298351.DWG
 PLOT/UPDATE: SEP 12 2003 14:00:21



- LEGEND**
- ⊕ W1-16 MONITORING WELL
 - △ PZ1-21 PIEZOMETER
 - ⊕ W1-22 COLLECTION TRENCH WELL
 - WATER BODY
 - ▨ RIPRAP
 - - - SITE SECURITY FENCE
 - ⌂ GATE
 - PAVED ROAD
 - - - UNSURFACED ROAD
 - - - GAS VENTING TRENCH
 - - - GROUNDWATER COLLECTION TRENCH
 - HEAVED AREA BOUNDARY



NAVAL FACILITIES ENGINEERING COMMAND
 SOUTHWEST DIVISION
 SAN DIEGO, CA

FIGURE 5-1
 WELL AND PIEZOMETER LOCATIONS AT
 SITE 1 LANDFILL
 FORMER NAS MOFFETT FIELD
 MOFFETT FIELD, CA

FOSTER WHEELER
 ENVIRONMENTAL CORPORATION

APPENDIX H

2004 SANTA CLARA COUNTY LANDFILL INSPECTION REPORTS AND GENERAL SITE INSPECTION REPORTS

2004 SANTA CLARA COUNTY LANDFILL INSPECTION REPORTS

Closed Site Inspection Report

Enforcement Agency:

Santa Clara County Department of Environmental Health - LEA

Page 1 of 1

| | | | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|-------------------------------------------------|-----------------------------------------------------------------|-----------------------------------|
| FACILITY FILE NUMBER 43-AA-0005 | PROGRAM CODE LOCAL = L STATE = S L | INSPECTION DATE MM DD YY 2/18/2004 | TIME IN 10:00 AM | INSPECTION TIME 2 hours |
| FACILITY NAME NASA / MOFFETT FIELD - Sites 1 & 22 Closed Landfills | | | RECEIVED BY (OPERATOR) <i>Randy Munelung</i> , ROICC SFOA | |
| FACILITY LOCATION Moffett Blvd., Mt. View, CA | | | OWNER United States Government | |
| INSPECTOR Chris Rummel, R.E.H.S. | | INSPECTOR SIGNATURE <i>Chris Rummel</i> | ALSO PRESENT <i>Mary Parker & Wilson Doctor - NAVFAC</i> | |
| THE ABOVE FACILITY WAS INSPECTED FOR COMPLIANCE WITH APPLICABLE SECTIONS OF DIVISION 30 OF THE PUBLIC RESOURCES CODE (PRC) and TITLE 27 CALIFORNIA CODE OF REGULATIONS (CCR). | | | | |

THE STANDARDS BELOW ARE CONSIDERED IN COMPLIANCE UNLESS OTHERWISE MARKED WITH ONE OF THE FOLLOWING: V = VIOLATION A = AREA OF CONCERN NA = NOT APPLICABLE

SITES NOT SUBJECT TO ARTICLE 2 STANDARDS

| | V | A | NA |
|------------------------------------|---|---|----|
| 20530 - SITE SECURITY | | | |
| 20650 - GRADING OF FILL SURFACES | | | |
| 20750 - SITE MAINTENANCE | | | |
| 20790 - LEACHATE CONTROL | | | |
| 20820 - DRAINAGE / EROSION CONTROL | | | |
| 20830 - LITTER CONTROL | | | |
| 20919 - GAS CONTROL | | | |
| 21190(c) - POSTCLOSURE LAND USE | | | |
| OTHER | | | |
| | | | |
| | | | |
| | | | |

COMMENTS (USE SWIS-43 FOR ADDITIONAL SPACE)

Weather: cool, windy, no rain

SITE 1: Site inspection revealed no problem areas. Site looked excellent. Several wells were monitored and gas levels were consistent with recent monitoring results from Third Quarter Monitoring Rept.

SITE 22: No deficiencies to report. Inspected gas wells & sampled around trees. No detection of gas. Gas wells were full of water. Purging is needed before sampling.

DOCUMENTS RECEIVED SINCE LAST INSPECTION 11/22/03³

- (1) Final- Third quarter 2003 - Monitoring and Maintenance Report for Site 1, Rev. 0, Dec. 16, 2003
- (2) Draft - Remedial Action Report for Installation Restoration Site 22 Landfill, Rev. 0, Dec. 23, 2003

SPACE FOR ADDITIONAL COMMENTS, DIAGRAMS, OR NOTES.

DISTRIBUTION:

TOP - CIWMB

MIDDLE - EA

BOTTOM - OPERATOR

Closed Site Inspection Report

Enforcement Agency: Santa Clara County Dept. of Environmental Health

Page 1 of 1

| | | | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|-----------------------------------------|-------------------------------------------|-----------------|
| FACILITY FILE NUMBER 43-AA-0005 | PROGRAM CODE LOCAL = L STATE = S L | INSPECTION DATE MM DD YY 05-19-04 | TIME IN 10:00 TIME OUT 12:15 | INSPECTION TIME |
| FACILITY NAME NASA/MOFFETT FIELD-Sites 1 & 22 | | | RECEIVED BY (OPERATOR) Ray J. Munhanna | |
| FACILITY LOCATION Moffett Field, CAL. | | | OWNER U.S. Government | |
| INSPECTOR Chris Rummel, REHS | INSPECTOR SIGNATURE Chris Rummel | | ALSO PRESENT | |
| THE ABOVE FACILITY WAS INSPECTED FOR COMPLIANCE WITH APPLICABLE SECTIONS OF DIVISION 30 OF THE PUBLIC RESOURCES CODE (PRC) and TITLE 27 CALIFORNIA CODE OF REGULATIONS (CCR). | | | | |

THE STANDARDS BELOW ARE CONSIDERED IN COMPLIANCE UNLESS OTHERWISE MARKED WITH ONE OF THE FOLLOWING: V = VIOLATION A = AREA OF CONCERN NA = NOT APPLICABLE

| SITES NOT SUBJECT TO ARTICLE 2 STANDARDS | | | | |
|------------------------------------------|---|---|----|--|
| | V | A | NA | |
| 20530 - SITE SECURITY | | | | |
| 20650 - GRADING OF FILL SURFACES | | | | |
| 20750 - SITE MAINTENANCE | | | | |
| 20790 - LEACHATE CONTROL | | | | |
| 20820 - DRAINAGE / EROSION CONTROL | | | | |
| 20830 - LITTER CONTROL | | | | |
| 20919 - GAS CONTROL | | | | |
| 21190(c) - POSTCLOSURE LAND USE | | | | |
| OTHER | | | | |
| | | | | |
| | | | | |
| | | | | |

COMMENTS (USE SMS-43 FOR ADDITIONAL SPACE)

SITE 1: No problem areas to report. Recent maintenance work on concrete collars around landfill gas vents was noted.

SITE 22: Along North Patrol Road woven plastic sand bags are torn and breaking down releasing plastic litter. Bags are placed at transition between turf side slopes and slurry-lined drainage ditch. Inquiry was made regarding future plans or need for this line of deteriorating sand bags.

Documents received in last quarter:

① Final-4TH Quarter 2003 Monitoring and Maintenance Rept. Site 1, Mar. 12, 2004

② Final-Tech. Memorandum Site 1 Groundwater Evaluation Process, April 8, 2004

SPACE FOR ADDITIONAL COMMENTS, DIAGRAMS, OR NOTES.

Closed Disposal Site Inspection Report

Enforcement Agency: Santa Clara County, Department of Environmental Health - Local Enforcement Agency

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| | | | | |
|---------------------------------------------|--------------------------------|--------------------------|--------------------------|-----------------|
| FACILITY/FILE NUMBER/UNIT | PROGRAM CODE LOCAL STATE IS | INSPECTION DATE MM DD | TIME IN | INSPECTION TIME |
| 43-AA-0005 | LOCAL = L | 8/18/04 | 10:40 | |
| FACILITY NAME | | | TIME OUT | |
| NASA/MOFFETT FIELD - Sites 1 & 22 Landfills | | | 12:20 | |
| FACILITY LOCATION | | | RECEIVED BY (OPERATOR) | |
| Moffett Field, CA | | | <i>Sam J. Manekawa</i> | |
| INSPECTOR | | | OWNER | |
| Chris Rummel, R.E.H.S. | | | United States Government | |
| INSPECTOR SIGNATURE | | | ALSO PRESENT | |
| <i>Chris Rummel</i> | | | Dave Smith, Bill Ogle | |

THE ABOVE FACILITY WAS INSPECTED FOR COMPLIANCE WITH APPLICABLE SECTIONS OF DIVISION 30 OF PUBLIC RESOURCES CODE (PRC) AND TITLE 27 CALIFORNIA CODE OF REGULATION (CCR).

THE STANDARDS BELOW ARE CONSIDERED IN COMPLIANCE UNLESS OTHERWISE MARKED WITH ONE OF THE FOLLOWING: V = VIOLATION A = AREA OF CONCERN NA = NOT APPLICABLE

| POSTCLOSURE | V | A | NA |
|--------------------------------------|---|---|----|
| 20750 - SITE MAINTENANCE | | | |
| 21180 - POSTCLOSURE MAINTENANCE | | | |
| 21190 - POSTCLOSURE LAND USE | | | |
| GAS MONITORING AND CONTROL SYSTEMS | | | |
| 20918 - EXEMPTIONS | | | |
| 20919 - GAS CONTROLS | | | |
| 20919.5 - EXPLOSIVE GAS CONTROL | | | |
| 20921 - GAS MONITORING/CONTROL | | | |
| 20923 - MONITORING | | | |
| 20925 - PERIMETER MONITORING NETWORK | | | |
| 20931 - STRUCTURE MONITORING | | | |
| 20932 - MONITORED PARAMETERS | | | |
| 20933 - MONITORING FREQUENCY | | | |
| 20934 - REPORTING | | | |
| 20937 - CONTROL | | | |
| GRADING/FINAL COVER | | | |
| 20650 - GRADING OF FILL SURFACES | | | |
| 21140 - FINAL COVER | | | |
| 21142 - FINAL GRADING | | | |
| 21145 - SLOPE STABILITY | | | |

| DRAINAGE AND EROSION CONTROL | V | A | NA |
|---------------------------------------------------|---|---|----|
| 20820 - DRAINAGE/EROSION CONTROL | | | |
| 21150 - DRAINAGE/EROSION CONTROL | | | |
| MONITORING AND CONTROL SYSTEMS | | | |
| 20790 - LEACHATE CONTROL | | | |
| 20830 - LITTER CONTROL | | | |
| 21160 - LF GAS CONTROL/LEACHATE CONTACT | | | |
| SECURITY | | | |
| 20530 - SITE SECURITY | | | |
| 21135 - SECURITY AT CLOSED SITES | | | |
| 21137 - STRUCTURE REMOVAL | | | |
| RECORDS | | | |
| 21130 - EMERGENCY RESPONSE PLAN | | | |
| 21170 - RECORDING | | | |
| 21200 - CHANGE OF OWNERSHIP | | | |
| CLOSURE PLANS | | | |
| 21880 - CERTIFICATION OF CLOSURE | | | |
| 21890 - REVISION OF APPROVED PLANS FOR C/PC MAINT | | | |
| OTHER | | | |
| | | | |
| | | | |

COMMENTS (USE CIWMB 3 FOR ADDITIONAL SPACE)

| |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| |
| |
| SITE 1: Site inspection revealed no problem areas. Site looked excellent. |
| |
| |
| |
| |
| |
| |
| SITE 22: No deficiencies to report, as for site cover and final surface features. Eroding bags of sand/aggregate have been removed. |
| Area of Concern 27 CCR 20925: Perimeter gas monitoring wells need to be fitted with a valved petcock fitting to allow proper sampling of first-drawn gas, without the dilution from open air when locked cap is removed. |
| |
| |
| |
| |
| |
| DOCUMENTS RECEIVED SINCE LAST INSPECTION 5/18/04: |
| (1) Draft Site 1 Landfill Post Closure Long-Term Monitoring Plan - Revision 0, June 16, 2004. |
| |
| |
| |
| |

Closed Disposal Site Inspection Report

Enforcement Agency: Santa Clara County, Department of Environmental Health - Local Enforcement Agency

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| | | | | |
|--------------------------------------------------------------|-------------------------------------|-------------------------------------|-----------------------------------------|-----------------|
| FACILITY FILE NUMBER/DATE | PROGRAM CODE LOCAL = L STATE = S | INSPECTION DATE MM DD YY | TIME IN 10:30 | INSPECTION TIME |
| 43-AA-0005 | LOCAL = L | 11/17/04 | TIME OUT 12:00 | |
| FACILITY NAME NASA/MOFFETT FIELD - Sites 1 & 22 Landfills | | | RECEIVED BY (OPERATOR) Day / Munkhwa | |
| FACILITY LOCATION Moffett Field, CA | | | OWNER United States Government | |
| INSPECTOR Chris Rummel, R.E.H.S. | | INSPECTOR SIGNATURE Chris Rummel | ALSO PRESENT David Smith, Bill Ogle | |

THE ABOVE FACILITY WAS INSPECTED FOR COMPLIANCE WITH APPLICABLE SECTIONS OF DIVISION 30 OF PUBLIC RESOURCES CODE (PRC) AND TITLE 27 CALIFORNIA CODE OF REGULATION (CCR).

THE STANDARDS BELOW ARE CONSIDERED IN COMPLIANCE UNLESS OTHERWISE MARKED WITH ONE OF THE FOLLOWING: V = VIOLATION A = AREA OF CONCERN NA = NOT APPLICABLE

| POSTCLOSURE | V | A | NA |
|--------------------------------------|---|----|----|
| 20750 - SITE MAINTENANCE | | | |
| 21180 - POSTCLOSURE MAINTENANCE | | | |
| 21190 - POSTCLOSURE LAND USE | | | |
| GAS MONITORING AND CONTROL SYSTEMS | | | |
| 20918 - EXEMPTIONS | | | |
| 20919 - GAS CONTROLS | | | |
| 20919.5 - EXPLOSIVE GAS CONTROL | | | |
| 20921 - GAS MONITORING/CONTROL | | | |
| 20923 - MONITORING | | | |
| 20925 - PERIMETER MONITORING NETWORK | | OK | |
| 20931 - STRUCTURE MONITORING | | | |
| 20932 - MONITORED PARAMETERS | | | |
| 20933 - MONITORING FREQUENCY | | | |
| 20934 - REPORTING | | | |
| 20937 - CONTROL | | | |
| GRADING/FINAL COVER | | | |
| 20650 - GRADING OF FILL SURFACES | | | |
| 21140 - FINAL COVER | | | |
| 21142 - FINAL GRADING | | | |
| 21145 - SLOPE STABILITY | | | |

| DRAINAGE AND EROSION CONTROL | V | A | NA |
|---------------------------------------------------|---|---|----|
| 20820 - DRAINAGE/EROSION CONTROL | | | |
| 21150 - DRAINAGE/EROSION CONTROL | | | |
| MONITORING AND CONTROL SYSTEMS | | | |
| 20790 - LEACHATE CONTROL | | | |
| 20830 - LITTER CONTROL | | | |
| 21160 - LF GAS CONTROL/LEACHATE CONTACT | | | |
| SECURITY | | | |
| 20530 - SITE SECURITY | | | |
| 21135 - SECURITY AT CLOSED SITES | | | |
| 21137 - STRUCTURE REMOVAL | | | |
| RECORDS | | | |
| 21130 - EMERGENCY RESPONSE PLAN | | | |
| 21170 - RECORDING | | | |
| 21200 - CHANGE OF OWNERSHIP | | | |
| CLOSURE PLANS | | | |
| 21880 - CERTIFICATION OF CLOSURE | | | |
| 21890 - REVISION OF APPROVED PLANS FOR C/PC MAINT | | | |
| OTHER | | | |
| | | | |
| | | | |

COMMENTS (USE CIWMB 3 FOR ADDITIONAL SPACE)

SITE 1: Site inspection revealed no problem areas. Site looked excellent.

SITE 22: No deficiencies to report.

Corrected Area of concern: All gas monitoring wells have sample tubes with valves for first-draw sampling.

DOCUMENTS RECEIVED SINCE LAST INSPECTION 8/18/04:


None

2004 GENERAL SITE INSPECTION REPORTS

TABLE 1-3
SITE 1 LANDFILL
GENERAL INSPECTION LIST

Inspection Date: January 19, 2004 Inspector: Bill Ogle

| Site | Item | Condition | | | Comments |
|------|--------------------------------------------|-----------|-------------------|-----|------------------|
| | | Good | Needs Maintenance | N/A | |
| 1 | General Site | | | | |
| | - access roads | X | | | |
| | - warning/instruction signs | X | | | |
| | - litter | X | | | |
| | - traffic protection (check bollards) | X | | | |
| | - inspect for nesting owls | X | | | |
| | - heaved areas | X | | | |
| | - paint condition (vents, well, bollards) | X | | | |
| | - security fencing/gates | X | | | |
| | - check integrity of fence flashing | X | | | |
| | Landfill Cap | | | | |
| | - erosion | X | | | |
| | - settling | X | | | |
| | - settlement markers | X | | | |
| | - cracking | X | | | |
| | - rodent burrows | X | | | No activity |
| | - vegetation restoration | X | | | Excellent growth |
| | - deep rooted vegetation | X | | | |
| | - breaching of cap (from roots, burrows) | X | | | None seen |
| | - water drainage | X | | | Good |
| | - rip rap | X | | | |
| | - paint and maintain bird perches | X | | | |
| | Landfill Gas Vents | | | | |
| | - riser condition | X | | | |
| | - concrete collar condition | X | | | |
| | - screen condition | X | | | |
| | Landfill Gas Monitoring Wells | | | | |
| | - well cap integrity | X | | | |
| | - water drainage | X | | | |
| | - traffic protection | X | | | |
| | - concrete collar condition | X | | | |
| | - screen condition | X | | | |
| | - locks | X | | | |
| | Gas Venting Trench | | | | |
| | - riser integrity | X | | | |
| | Groundwater Extraction Trench Wells | | | | |
| | - vault integrity | X | | | |
| | - water drainage | X | | | |

| Site | Item | Condition | | | Comments |
|------|---------------------------------------------------------------------------------------|-----------|-------------------|-----|-------------------------------|
| | | Good | Needs Maintenance | N/A | |
| | - locks | X | | | |
| | Groundwater Monitoring Wells | | | | |
| | - well cap integrity | X | | | |
| | - water drainage | X | | | |
| | - locks | X | | | |
| | Groundwater Piezometers | | | | |
| | - well cap integrity | X | | | |
| | - water drainage | X | | | |
| | - locks | X | | | |
| | Stormwater Runoff Control | | | | |
| | - water drainage | X | | | |
| | - culvert/trench drainage | X | | | |
| | - culvert screen condition | | | | Present _____ Absent <u>X</u> |
| | - rip rap | X | | | |
| | - settlement | X | | | |
| | - erosion | X | | | |
| | Additional Comments: | | | | |
| | Painted bollards and well vault | | | | |
| |  | | | | |

Notes:

N/A = Not Applicable

TABLE 1-3


SITE 1 LANDFILL

GENERAL INSPECTION LIST

Inspection Date: February 18, 2004

Inspector: Bill Ogle

| Site | Item | Condition | | | Comments |
|------|--------------------------------------------|-----------|-------------------------|-----|------------------|
| | | Good | Needs Maintenance | N/A | |
| 1 | General Site | | | | |
| | - access roads | X | | | |
| | - warning/instruction signs | X | | | |
| | - litter | X | | | |
| | - traffic protection (check bollards) | X | | | |
| | - inspect for nesting owls | X | | | |
| | - heaved areas | X | | | |
| | - paint condition (vents, well, bollards) | X | | | |
| | - security fencing/gates | X | | | |
| | - check integrity of fence flashing | X | | | |
| | Landfill Cap | | | | |
| | - erosion | X | | | |
| | - settling | X | | | |
| | - settlement markers | X | | | |
| | - cracking | X | | | |
| | - rodent burrows | X | | | No activity |
| | - vegetation restoration | X | | | Excellent growth |
| | - deep rooted vegetation | X | | | |
| | - breaching of cap (from roots, burrows) | X | | | |
| | - water drainage | X | Cleanup at the culverts | | Good |
| | - rip rap | X | | | |
| | - paint and maintain bird perches | X | | | |
| | Landfill Gas Vents | | | | |
| | - riser condition | X | | | |
| | - concrete collar condition | X | | | |
| | - screen condition | X | | | |
| | Landfill Gas Monitoring Wells | | | | |
| | - well cap integrity | X | | | |
| | - water drainage | X | | | |
| | - traffic protection | X | | | |
| | - concrete collar condition | X | | | |
| | - screen condition | X | | | |
| | - locks | X | | | |
| | Gas Venting Trench | | | | |
| | - riser integrity | X | | | |
| | Groundwater Extraction Trench Wells | | | | |
| | - vault integrity | X | | | |
| | - water drainage | X | | | |

| Site | Item | Condition | | | Comments |
|------|---------------------------------------------------------------------------------------|-----------|-------------------|-----|-----------------------------|
| | | Good | Needs Maintenance | N/A | |
| | - locks | X | | | |
| | Groundwater Monitoring Wells | | | | |
| | - well cap integrity | X | | | |
| | - water drainage | X | | | |
| | - locks | X | | | |
| | Groundwater Piezometers | | | | |
| | - well cap integrity | X | | | |
| | - water drainage | X | | | |
| | - locks | X | | | |
| | Stormwater Runoff Control | | | | |
| | - water drainage | X | | | |
| | - culvert/trench drainage | X | | | |
| | - culvert screen condition | | | | Present ___ Absent <u>X</u> |
| | - rip rap | X | | | |
| | - settlement | X | | | |
| | - erosion | X | | | |
| | Additional Comments: | | | | |
| | 1. Add seed at rolloff laydown area. | | | | |
| |  | | | | |

Notes:


N/A = Not Applicable

TABLE 1-3
SITE 1 LANDFILL
GENERAL INSPECTION LIST

Inspection Date: May 18, 2004

Inspector: _____ Bill Ogle _____

| Site | Item | Condition | | | Comments |
|------|--------------------------------------------|-----------|-------------------|-----|------------------------|
| | | Good | Needs Maintenance | N/A | |
| 1 | General Site | | | | |
| | - access roads | X | | | Cut weeds along berm |
| | - warning/instruction signs | X | | | |
| | - litter | X | | | |
| | - traffic protection (check bollards) | X | | | |
| | - inspect for nesting owls | X | | | Owl seen at Site 2 |
| | - heaved areas | X | | | |
| | - paint condition (vents, well, bollards) | X | | | |
| | - security fencing/gates | X | | | |
| | - check integrity of fence flashing | X | | | |
| | Landfill Cap | | | | |
| | - erosion | X | | | |
| | - settling | X | | | |
| | - settlement markers | X | | | |
| | - cracking | X | | | |
| | - rodent burrows | X | | | One burrow in 3 months |
| | - vegetation restoration | X | | | Excellent growth |
| | - deep rooted vegetation | X | | | |
| | - breaching of cap (from roots, burrows) | X | | | |
| | - water drainage | X | | | |
| | - rip rap | X | | | |
| | - paint and maintain bird perches | X | | | |
| | Landfill Gas Vents | | | | |
| | - riser condition | X | | | |
| | - concrete collar condition | X | | | Two repaired |
| | - screen condition | X | | | |
| | Landfill Gas Monitoring Wells | | | | |
| | - well cap integrity | X | | | |
| | - water drainage | X | | | |
| | - traffic protection | X | | | |
| | - concrete collar condition | X | | | |
| | - screen condition | X | | | |
| | - locks | X | | | |
| | Gas Venting Trench | | | | |
| | - riser integrity | X | | | |
| | Groundwater Extraction Trench Wells | | | | |
| | - vault integrity | X | | | |
| | - water drainage | X | | | |

| Site | Item | Condition | | | Comments |
|------|---------------------------------------------------------------------------------------|-----------|-------------------|-----|------------------------|
| | | Good | Needs Maintenance | N/A | |
| | - locks | X | | | |
| | Groundwater Monitoring Wells | | | | |
| | - well cap integrity | X | | | |
| | - water drainage | X | | | |
| | - locks | X | | | |
| | Groundwater Piezometers | | | | |
| | - well cap integrity | X | | | |
| | - water drainage | X | | | |
| | - locks | X | | | |
| | Stormwater Runoff Control | | | | |
| | - water drainage | X | | | |
| | - culvert/trench drainage | X | | | |
| | - culvert screen condition | | | | Present ____ Absent _X |
| | - rip rap | X | | | |
| | - settlement | X | | | |
| | - erosion | X | | | |
| | Additional Comments: | | | | |
| |  | | | | |

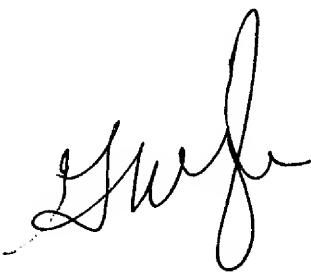
Notes:

N/A = Not Applicable

TABLE 1-3
SITE 1 LANDFILL
GENERAL INSPECTION LIST

Inspection Date: August 17, 2004Inspector: Bill Ogle

| Site | Item | Condition | | | Comments |
|------|--------------------------------------------|-----------|-------------------|-----|--------------------------|
| | | Good | Needs Maintenance | N/A | |
| 1 | General Site | | | | |
| | - access roads | X | | | |
| | - warning/instruction signs | X | | | |
| | - litter | X | | | |
| | - traffic protection (check bollards) | X | | | |
| | - inspect for nesting owls | X | | | |
| | - heaved areas | X | | | |
| | - paint condition (vents, well, bollards) | X | | | In progress |
| | - security fencing/gates | X | | | |
| | - check integrity of fence flashing | X | | | |
| | Landfill Cap | | | | |
| | - erosion | X | | | |
| | - settling | X | | | |
| | - settlement markers | X | | | |
| | - cracking | X | | | |
| | - rodent burrows | X | | | Three found in one month |
| | - vegetation restoration | X | | | |
| | - deep rooted vegetation | X | | | None found |
| | - breaching of cap (from roots, burrows) | X | | | |
| | - water drainage | X | | | |
| | - rip rap | X | | | |
| | - paint and maintain bird perches | X | | | In progress |
| | Landfill Gas Vents | | | | |
| | - riser condition | X | | | |
| | - concrete collar condition | X | | | Repaired all |
| | - screen condition | X | | | |
| | Landfill Gas Monitoring Wells | | | | |
| | - well cap integrity | X | | | |
| | - water drainage | X | | | |
| | - traffic protection | X | | | |
| | - concrete collar condition | X | | | |
| | - screen condition | X | | | |
| | - locks | X | | | |
| | Gas Venting Trench | | | | |
| | - riser integrity | X | | | |
| | Groundwater Extraction Trench Wells | | | | |
| | - vault integrity | X | | | |
| | - water drainage | X | | | |

| Site | Item | Condition | | | Comments |
|------|-----------------------------------------------------------------------------------------------------------------------|-----------|-------------------|-----|-----------------------|
| | | Good | Needs Maintenance | N/A | |
| | - locks | X | | | |
| | Groundwater Monitoring Wells | | | | |
| | - well cap integrity | X | | | |
| | - water drainage | X | | | |
| | - locks | X | | | |
| | Groundwater Piezometers | | | | |
| | - well cap integrity | X | | | |
| | - water drainage | X | | | |
| | - locks | X | | | |
| | Stormwater Runoff Control | | | | |
| | - water drainage | X | | | |
| | - culvert/trench drainage | X | | | |
| | - culvert screen condition | X | | | Present X Absent ____ |
| | - rip rap | X | | | |
| | - settlement | X | | | |
| | - erosion | X | | | |
| | Additional Comments:  | | | | |

Notes:

N/A = Not Applicable

TABLE 4-1

SITE 1 LANDFILL GENERAL INSPECTION CHECKLIST AND FREQUENCY

| Item | Frequency | Condition | | | Comments |
|---------------------------------------------------------------|------------------------|-----------|-------------------|-----|------------------|
| | | Good | Needs Maintenance | N/A | |
| <i>General Site Conditions</i> | | | | | |
| - Perimeter Road | Quarterly ^a | ✓ | | | |
| - landfill signs | Quarterly ^a | ✓ | | | |
| - inspect for nesting owls and burrowing animals | Quarterly ^a | ✓ | | | NO BURROWS FOUND |
| - security fencing and gates | Quarterly ^a | ✓ | | | |
| - riprap | Quarterly ^a | ✓ | | | |
| <i>Landfill Cap</i> | | | | | |
| - settlement monitoring (survey monuments) | Every 5 Years | | | | |
| - erosion | Quarterly ^a | ✓ | | | |
| - visual observations of settling (i.e., cracking, sloughing) | Quarterly ^a | | | | |
| - vegetation control and restoration | Quarterly ^a | ✓ | | | |
| - cap breaching | Quarterly ^a | ✓ | | | |
| - water drainage | Quarterly ^a | ✓ | | | EXCELLENT |
| - paint and maintain raptor perches | Quarterly ^a | ✓ | | | DID NOT MOVE ANY |
| <i>Landfill Gas Vents</i> | | | | | |
| - riser condition (i.e., paint, integrity) | Semiannual | ✓ | | | |
| - concrete collar condition | Semiannual | ✓ | | | |
| - screen condition | Semiannual | ✓ | | | |
| <i>Landfill Gas Monitoring Wells</i> | | | | | |
| - riser condition (i.e., paint, integrity) | Semiannual | ✓ | | | |
| - traffic protection (i.e., bollards) | Semiannual | ✓ | | | |
| - concrete collar condition | Semiannual | ✓ | | | |
| - well cap integrity | Semiannual | ✓ | | | |
| - water drainage | Semiannual | ✓ | | | |
| - well locks | Semiannual | ✓ | | | |
| <i>Collection Trench Wells</i> | | | | | |
| - concrete collar condition | Semiannual | ✓ | | | |
| - protective cover condition | Semiannual | ✓ | | | |
| - well cap integrity | Semiannual | ✓ | | | |
| - water drainage | Semiannual | ✓ | | | |
| - well locks | Semiannual | ✓ | | | |

TABLE 4-1

SITE 1 LANDFILL GENERAL INSPECTION CHECKLIST AND FREQUENCY

| Item | Frequency | Condition | | | Comments |
|-----------------------------------------------------|-------------------------|-----------|-------------------|-----|------------------------|
| | | Good | Needs Maintenance | N/A | |
| <i>Groundwater Monitoring Wells and Piezometers</i> | | | | | |
| - riser condition (i.e., paint, integrity, cover) | Semiannual | | WI-1R NEEDS PAINT | | |
| - concrete collar condition | Semiannual | ✓ | | | |
| - traffic protection (i.e., bollards) | Semiannual | ✓ | | | |
| - well cap integrity | Semiannual | ✓ | | | |
| - water drainage | Semiannual | ✓ | | | |
| - well locks | Semiannual | ✓ | | | |
| <i>Stormwater Runoff Control</i> | | | | | |
| - water drainage | Semiannual ^a | ✓ | | | |
| - culvert and trench drainage | Semiannual ^a | ✓ | | | SCREENS STILL IN PLACE |
| - riprap | Semiannual ^a | ✓ | | | |
| - erosion | Semiannual ^a | ✓ | | | |
| - settlement | Semiannual ^a | ✓ | | | |

Notes:

(a) Frequency indicates minimum requirements. Inspections are required after significant storm events and as needed.

Abbreviations and Acronyms:

N/A - not applicable

Handwritten signature
11-15-04

APPENDIX I

RESPONSE TO COMMENTS

**EPA COMMENTS ON
DRAFT SITE 1 LANDFILL 2004 ANNUAL REPORT
REVISION 0, JUNE 22, 2005
FORMER NAVAL AIR STATION MOFFETT FIELD
MOFFETT FIELD, CALIFORNIA**

Comments dated: August 26, 2005

Comments by: Lida Tan, Remedial Project Manager
Superfund Federal Facility Branch
EPA Region 9

GENERAL COMMENTS

Comment 1: *The Draft Site 1 Landfill 2004 Annual Report (Report) lists Calculated Concentration Limits (CCLs) for each constituent of concern (COC). The Report indicates that in some cases, the CCL was raised to meet the available method detection limit (MDL). However, according to the analytical results presented in Appendix B, the reporting limit exceeds the CCL for most of the dissolved metals and several of the semivolatile organic compounds (SVOCs), in some cases by one or two orders of magnitude. Therefore, based on the information presented in the Report, it can not be concluded that the constituents listed as 'not detected above the project reporting limit' are below the CCL. Please revise the Report to clarify that for many constituents the reporting limits exceed the CCL, and discuss how this affects the interpretation of the analytical data.*

Response 1: The *Technical Memorandum (Tech Memo) Site 1 Groundwater Evaluation Process* was finalized April 8, 2004. The reporting limit for most of the dissolved metals and select semivolatile analytical results obtained during the March 2004 sampling event (collected and analyzed prior to finalizing the Tech Memo) do exceed the calculated concentration limit (CCL), but they were conducted under the former groundwater sampling and analysis program at Site 1. Subsequent sampling events (May and November 2004) have been conducted in accordance with the Tech Memo, which required a new laboratory method for dissolved metals that obtained reporting limits below the respective CCLs.

Select SVOC reporting limits (the sample quantitation limit [SQL] value shown on Table 3-1) do exceed the CCL. For example, the SQL for Caprolactam is listed on Table 3-1 as 10 µg/L, and the May 2004 result for the groundwater sample collected from monitoring well W1-1 is 9.4U µg/L. However, the method detection limit (MDL) for

Caprolactam is 5 µg/L (see Table 3-1), which is also the CCL. If there was a detection of Caprolactam equal to or greater than 5 µg/L and less than 9.4 µg/L, the value would be reported as an estimated value (flagged with a “J” by the laboratory). Estimated concentrations are considered detections in the groundwater evaluation process. The duplicate sample for well W1-1 for May 2004 shows the validity of this methodology, as the Caprolactam concentration is reported as 6.2J µg/L.

All of the compounds that have CCLs less than the SQL, have the CCL equal to the MDL. Therefore, the methodology will identify any compound that exceeds a CCL.

No change in text is proposed.

Comment 2:

The conclusion of the Report summarizes the same information that was presented in the previous sections of the Report; however, no real conclusions are provided. To make the Report more useful for reviewers, please revise the Report to provide conclusions as to whether the data indicate there has or has not been a release from the landfill to groundwater, whether landfill gas is migrating offsite, and whether the landfill cover is intact and functional.

Response 2:

Concur. The last few paragraphs of Section 5.0 have been revised as follows:

There were no detections of dissolved mercury or of any SVOC greater than the laboratory reporting level for the supplemental groundwater samples collected in July, August, September, and December 2004. **In accordance with the Tech Memo (TtFW, 2004), analytical results obtained throughout 2004 indicate that there has not been a release from the landfill to groundwater.**

As part of landfill monitoring activities, methane monitoring was conducted for 19 passive gas vent wells within the Site 1 Landfill and 4 landfill gas monitoring wells on the perimeter of the landfill. Gas monitoring is also performed at the perimeter of the site at 150-foot intervals. **No landfill gas is migrating offsite.**

In general, the percentages of methane gas concentrations within the landfill were slightly lower in November 2004 than in March or May 2004 and are similar to historical concentrations. Methane concentrations were highest in May 2004, near the northern portion of the landfill (GV-8 at 57.9 percent), followed by a detected concentration of 52.1 percent in GV-11, which is near the center of the landfill. None of the perimeter wells showed concentrations of

methane above the concentrations limit of 5 percent (all readings were zero percent). Methane was not detected at any of the perimeter monitoring locations in March, May, or November 2004.

As part of landfill maintenance activities, the landfill is routinely inspected and repaired, as necessary. The landfill cover is intact and functional.

SPECIFIC COMMENTS

Comment 1:

Executive Summary, page ES-2: The second paragraph on this page indicates that bis(2-ethylhexyl)phthalate (BeP) exceedance of the CCL is considered to be false positive because BeP is often a laboratory contaminant. It is true that BeP is a common laboratory contaminant, but BeP can also be a site contaminant. The knowledge that BeP can be a laboratory contaminant is not sufficient to qualify sample results as such. Results should only be considered questionable when the concentrations of BeP in either laboratory blanks or blank samples collected during sampling are high enough (pursuant to Functional Guidelines Criteria) to justify qualifying the associated client sample results. Please revise the Report to include BeP results in the release analysis or to clarify if the above criteria were met.

Response 1:

BeP results have been included in the groundwater evaluation process. The end of the fourth paragraph on page 5-3, which continues on 5-4, states:

Both the BeP and caprolactam CCL exceedances were only in the duplicate sample. BeP and caprolactam were not detected in the regular sample collected from this well at the same time as the duplicate sample. In addition, BeP is often a laboratory contaminant. However, since this was the first time SVOCs were sampled at Site 1, there was no historical database for comparison. BeP and caprolactam were not detected in the July and August supplemental groundwater sampling events. The May CCL exceedance for these compounds is treated as a false positive, and these compounds were removed from further consideration.

The comment about BeP being a common laboratory contaminant is a side bar note. The analysis for BeP followed the Tech Memo requirements, looking at the subsequent July and August results. The false positive determination is based on not meeting the two out of three detections rule.

No change in text is proposed.

Comment 2:

Section 1.2, 2004 Monitoring and Maintenance Activities, Page 1-1: The first sentence in this section refers to monitoring and maintenance

activities conducted in 2004. However, only the monitoring activities are listed. Since the maintenance activities are discussed later in this section, and to avoid confusion, please delete the word 'maintenance' from the first sentence.

Response 2:

Concur. The first sentence of the first paragraph of Section 1.2 has been revised as follows:

Monitoring ~~and maintenance~~ activities conducted in 2004 at Site 1 included depth to groundwater measurements, groundwater sampling, and methane monitoring.

Comment 3:

Section 1.2, 2004 Monitoring and Maintenance Activities, Page 1-2:
The Report states that the sampling frequency and some analyses were modified in 2004 and that sampling was conducted in March, May, and November, but it is not clear from these three sampling dates whether the sampling schedule is semi-annual rather than quarterly or if sampling is done at some other frequency. Please clarify the new sampling frequency and indicate whether this change is temporary or permanent, and whether the new analyses will be included in all future sampling events.

Response 3:

Concur. The first and second paragraphs in Section 1.2 have been revised as follows:

Monitoring ~~and maintenance~~ activities conducted in 2004 at Site 1 included depth to groundwater measurements, groundwater sampling, and methane monitoring. Groundwater monitoring at Site 1 was conducted during 2004 in accordance with the *Site 1 Landfill Final Closure Plan and Post-Closure Maintenance Plan* (Tetra Tech EM, Inc. [TtEMI], 1998), the *Post-Closure Monitoring (Site 1) and Groundwater Monitoring (Site 2) Sampling and Analysis Plan* (International Technology Corporation [IT], 2000), the *Final Sampling and Analysis Plan Addendum for Post-Closure Monitoring (Site 1) and Groundwater Monitoring (Site 2)* (Foster Wheeler Environmental Corporation [FWENC], 2001a), and the *Final Site-Specific Contractor Quality Control Plan for Sites 1 and 2 Groundwater Monitoring and Maintenance* (FWENC, 2001b). **The groundwater evaluation process was revised between the March and May 2004 sampling events, in accordance with the Technical Memorandum Site 1 Groundwater Evaluation Process (Tech Memo) (Tetra Tech FW, Inc. [TtFW], 2004), which was finalized in April 2004.**

~~As requested approved~~ by the regulatory agencies, the sampling frequency and some analyses were modified in 2004 **in accordance with the Tech Memo. Sampling was conducted in March, May and November instead of quarterly. Quarterly**

sampling was continued through March 2004. The Tech Memo was issued in April 2004, which states that semiannual sampling will be conducted in May and November 2004. Mercury was added to the groundwater analytes sampled in March 2004, and mercury and semivolatile organic compounds (SVOCs) were added to the analytes sampled in May and November 2004.

Comment 4:

Section 1.2, 2004 Monitoring and Maintenance Activities, Page 1-2:
This section discusses the replacement of monitoring well W1-1, please provide the rationale for the replacement of W1-1. In addition, the section states that Well W1-1R which replaced W1-1 was developed in conformance with ASTM D5521-94. This ASTM standard was withdrawn in 2003 and replaced by newer standards. Please cite one of the current standards for purging and developing groundwater monitoring wells.

Response 4:

Regarding the replacement of W1-1, the following paragraph has been revised as follows:

Monitoring well W1-1 was replaced in August 2004 **due to corrosion of the well riser and outer protective casing**. Installation of monitoring well W1-1R was completed on August 13, 2004. Table 1-1 provides well construction information for all Site 1 monitoring wells. Monitoring well W1-1R was constructed using techniques that conform to American Society for Testing and Materials (ASTM) D5092-04. Well W1-1R was located as close as possible to the original well and screened in approximately the same interval. Development of well W1-1R was completed on August 16, 2004. W1-1R was developed using a combination of surging and pumping that conforms to ASTM D5521-94. The boring log, well completion report, survey report, well development log, and well construction application are included in Appendix G.

ASTM D5521-94e1 was withdrawn in 2002/2003, with no replacement. It was removed due to ballot inactivity after a 5 years time period. The subcommittee chairman usually requests re-approvals after 5 years, but this one was inadvertently missed, and ASTM removed it. The subcommittee chairman is currently balloting for re-instatement. It should be back on the books in a few months.

No change in text is proposed.

Comment 5:

Section 1.2, 2004 Monitoring and Maintenance Activities, Page 1-3:
With regard to maintenance activities, the Report states that no problems were noted during Santa Clara County Department of Health (DEH) inspections. However, according to the inspection checklists in Appendix H, there are several minor issues noted. Please

include a short discussion on these issues and the actions that were taken to address them.

Response 5:

The inspection checklist does not note any minor issues associated with the Site 1 Landfill. However, there were a few minor issues noted during the Site 22 inspection, which is addressed on the same form.

No change in text is proposed.

Comment 6:

Section 2.1, Groundwater Gradient and Flow Direction, Page 2-2:
The Report indicates that depth to groundwater measurements were collected from 12 monitoring wells, 2 piezometers, and 2 collection trench wells on each monitoring date, but some of the wells and piezometers were not measured on July 6. Please clarify which wells were not measured on July 6, 2004 and explain why these measurements were not collected.

Response 6:

Concur. The text in Section 2.1, Page 2-2, third paragraph was revised as follows:

Depth to groundwater measurements were collected from 12 monitoring wells, 2 piezometers, and 2 collection trench wells at the Site 1 Landfill on:

- March 22, 2004
- May 24, 2004
- ~~July 6, 2004~~
- August 18, 2004
- September 27, 2004
- November 8, 2004
- December 13, 2004

Depth to groundwater measurements were also collected on July 6, 2004. However, only the wells that were sampled were gauged for depth to groundwater measurements.

Comment 7:

Section 2.1, Groundwater Gradient and Flow Direction, Page 2-3:
Several monitoring wells were not included in the evaluation of the potentiometric surfaces; however, for some of these wells, the reason for their exclusion is not clear. For example, the water levels in W1-19 in August 2004 and W1-16 in December 2004 appear to be within the range of typical values for these wells according to the

hydrographs in Appendix D. Furthermore, well W1-16 was not included in the potentiometric evaluation for five of the seven monitoring events. It appears unlikely that there would be errors in field measurement for the same well repeatedly. Please provide further justification for excluding these wells from the groundwater gradient evaluation, especially when excluding data similar to the historical range for a particular well. Also, please provide further evaluation of the anomalous readings for well W1-16 and discuss whether exclusion of any wells from the sampling program affected the established monitoring points and points of compliance.

Response 7:

Concur. The water levels were reevaluated and included in the potentiometric surface contours. Therefore, Figure 2-2, Figure 2-3, Figure 2-4, Figure 2-5, Figure 2-7, and Figure 2-8 were revised. Furthermore, the text in Section 2.1, Page 2-3, first paragraph, was revised as follows:

The following monitoring wells were not included in the evaluation of the potentiometric surface: ~~It appears that the wells were gauged before the water levels in these wells stabilized from removing the water-tight compression caps or the field measurements were recorded in error.~~

- ~~• March 2004 – W1-19~~
- May 2004 – W1-1, W1-15, and W1-16
- July 2004 – W1-16 and W1-20 (W1-20 inadvertently not measured)
- ~~• August 2004 – W1-16 and W1-19~~
- ~~• November 2004 – W1-15, W1-16, and W1-24~~
- ~~• December 2004 – W1-16~~

In May 2004, it appears that the water level measurement in well W1-16 was recorded in error.